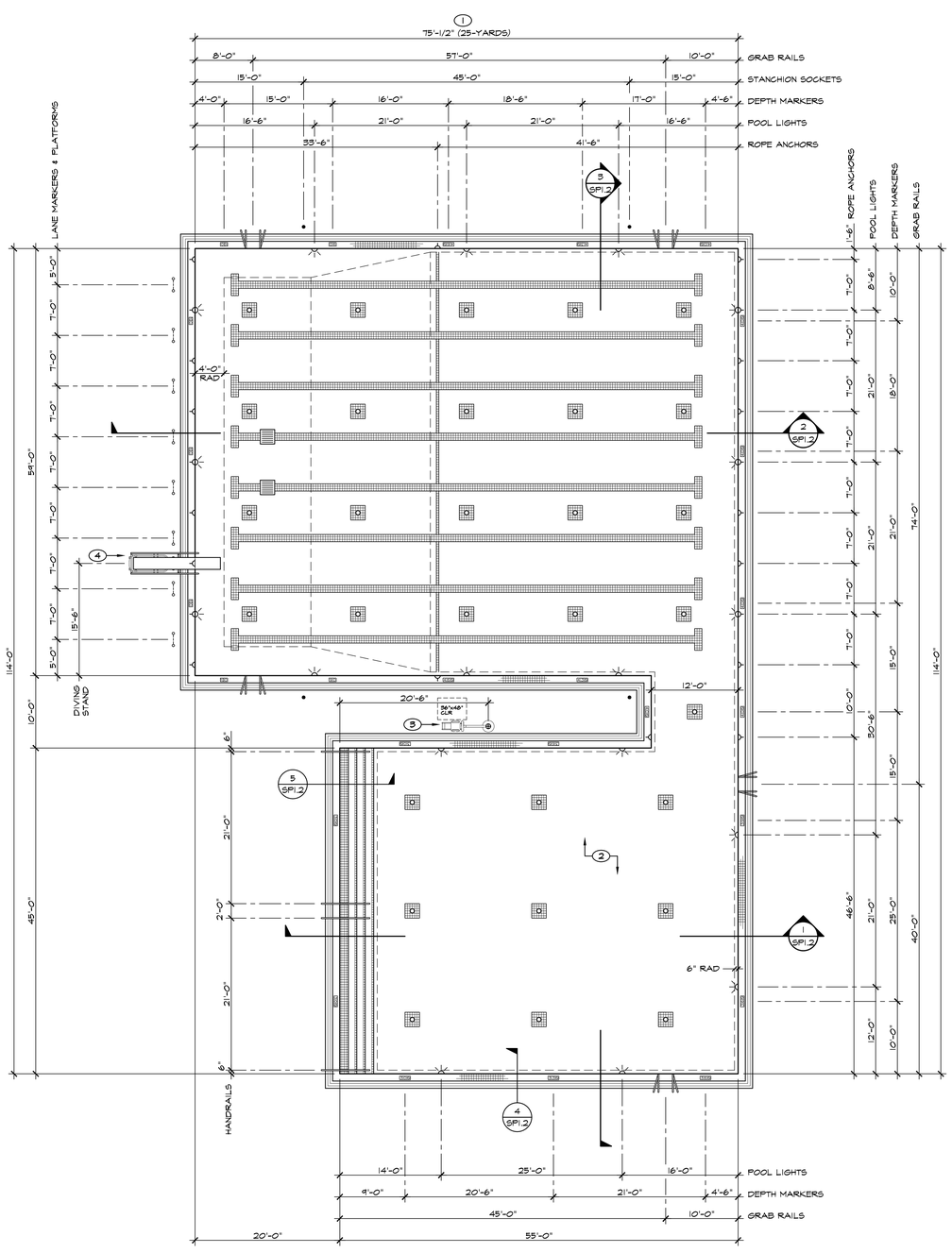


SWIMMING POOL PLAN

SCALE: 1/8" = 1'-0"

NORTH

KEYED NOTES

1. FINISHED DIMENSION OF POOL SHALL BE 75.04' MIN & 75.08' MAX. THIS TOLERANCE APPLIES TO ALL POINTS ON THE TURNING WALL FROM WATERLINE TO 3'-0" BELOW.
2. 1/2" MIN WHITE PLASTER FINISH
3. DISABLED ACCESS LIFT, SEE 5/SP2.1
4. 3/4 METER DIVING STAND, SEE 10/SP2.1

GENERAL NOTES

1. SET GUTTER CAP TILE LEVEL WITHIN A TOLERANCE OF ± 0.05" AROUND PERIMETER OF POOL.
2. DIMENSIONS ARE TYP FOR OPPOSITE SIDE OF POOL UNO.
3. SEE SHEET SP4.1 FOR FLOOR INLET & MAIN DRAIN DIMENSIONS.

SYMBOLS

SYMBOL	DESCRIPTION	REFERENCE
	DEPTH MARKER (TYP 26)	1/SP2.1
	ROPE ANCHOR (TYP 22)	3/SP2.1
	GRAB RAILS (TYP 5 PR)	4/SP2.1
⊕	DISABLED LIFT SOCKET	5/SP2.1
	STARTING PLATFORM ANCHOR (TYP 8)	6/SP2.1
•	STANCHION SOCKET (TYP 4)	7/SP2.1
	POOL LIGHT (TYP 18)	8/SP2.1
	TILE LANE MARKER & TURN TARGETS (TYP 8)	9/SP2.1
	FLOOR INLET (TYP 30)	1/SP4.3
	MAIN DRAIN GRATE (TYP 2)	2/SP4.3

DECK | POOL

POOL DATA

1. SURFACE AREA = 7,020 SQ FT
2. PERIMETER = 464 FT
3. VOLUME = 264,000 GALLONS
4. TURNOVER RATE = 850 GPM (5.2 HOURS)
5. FILTER AREA = 700 SQ FT (1.2 GPM/SQ FT)
6. MAIN DRAIN CAPACITY = 1,734 GPM
7. 10" SUCTION PIPE VELOCITY = 3.8 FT/SEC
8. 8" RETURN PIPE VELOCITY = 5.4 FT/SEC
9. SURGE CAPACITY = 7,200 GALLONS
10. BATHER LOAD = 351 PEOPLE

CITY OF GARDENA — FREEWAY CITY — INCORPORATED 1930

PREPARED BY:

JONES & MADHAVAN ARCHITECTURE ENGINEERING

100 EAST THOUSAND OAKS BOULEVARD, SUITE 211
THOUSAND OAKS, CALIFORNIA 91360
TEL 805.777.8449 ~ FAX 805.777.8489

LICENSED ARCHITECT — NAVDANYA M. MADHAVAN — C-25855 — REN. 11-30-22 — STATE OF CALIFORNIA

B.M.: THE CITY OF GARDENA BENCHMARK NO. SD-15
ELEV. = 43.508'

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

SWIMMING POOL PLAN

COMMUNITY AQUATICS & SENIOR CENTER

SP1.1

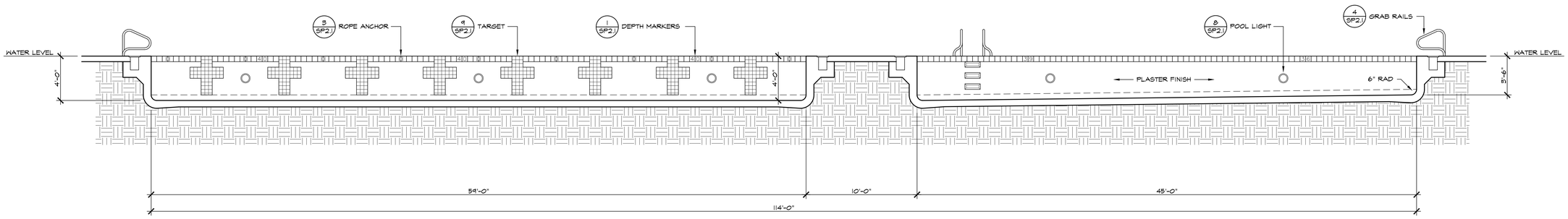
	INITIAL	DATE
DESIGNED BY	NM	9-30-22
DRAWN BY	JMAE	9-30-22
CHECKED BY	DJ	9-30-22

APPROVED BY:

DATE DIRECTOR OF PUBLIC WORKS

SHT. 141 OF 157 DWG. NO. 5-2606

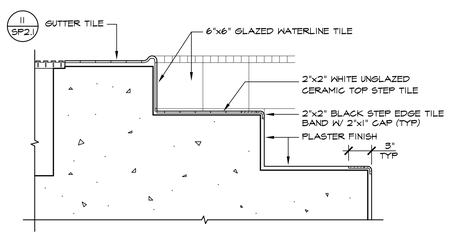
PLOT DATE: 10/3/2022



SWIMMING POOL SECTION

SCALE: 1/4" = 1'-0"

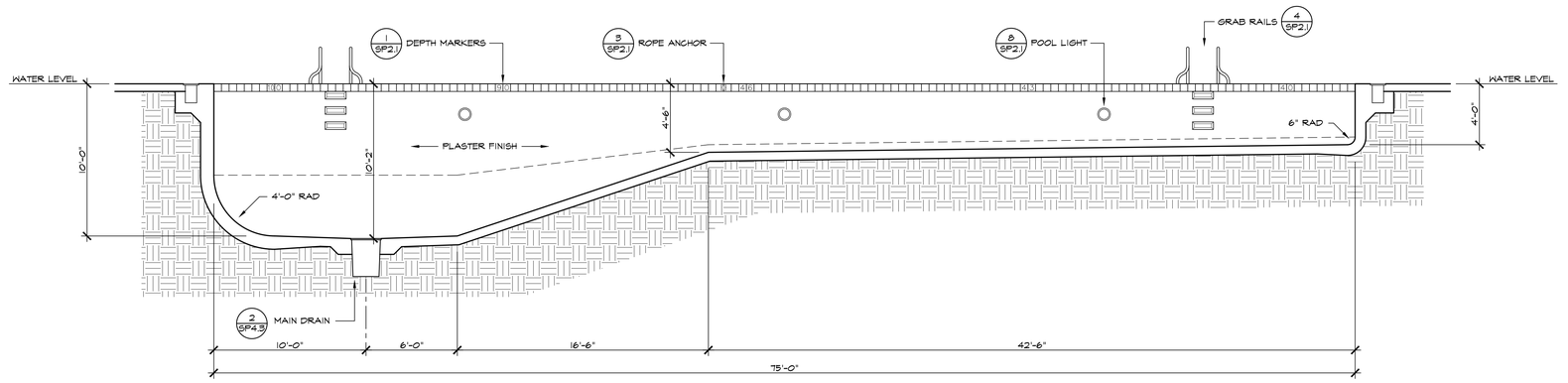
3



STAIR TILE

SCALE: 1 1/2" = 1'-0"

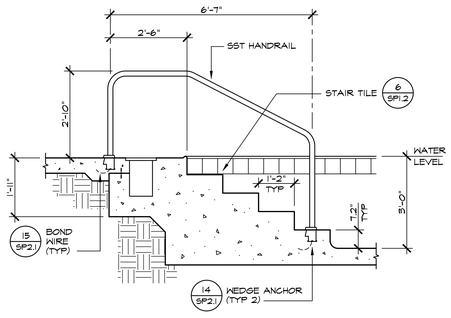
6



SWIMMING POOL SECTION

SCALE: 1/4" = 1'-0"

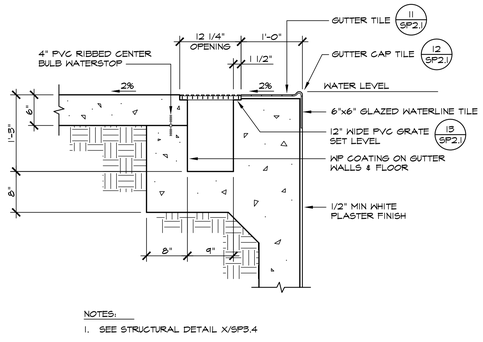
2



STAIR SECTION

SCALE: 1/2" = 1'-0"

5



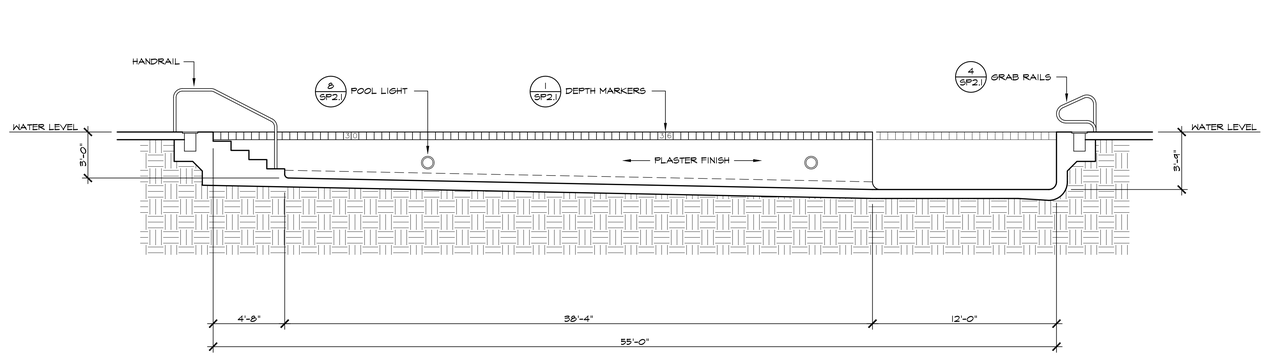
NOTES:

1. SEE STRUCTURAL DETAIL X/SP3.4

GUTTER SECTION

SCALE: 1" = 1'-0"

4



SWIMMING POOL SECTION

SCALE: 1/4" = 1'-0"

1

CITY OF GARDENA — FREEWAY CITY — INCORPORATED 1930

PREPARED BY:

JONES & MADHAVAN ARCHITECTURE ENGINEERING

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LICENSED ARCHITECT — NADEERA M. MADHAVAN — C-25855 — REN. 11-30-23 — STATE OF CALIFORNIA

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. SD-15
ELEV. = 43.508'

CITY OF GARDENA

DEPARTMENT OF PUBLIC WORKS - ENGINEERING

SWIMMING POOL SECTIONS

COMMUNITY AQUATICS & SENIOR CENTER

SP1.2

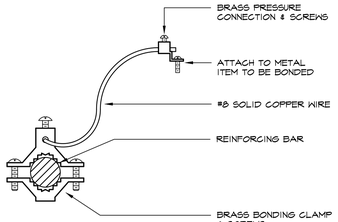
	INITIAL	DATE
DESIGNED BY	NM	9-30-22
DRAWN BY	JMAE	9-30-22
CHECKED BY	DJ	9-30-22

APPROVED BY:

DATE _____ DIRECTOR OF PUBLIC WORKS

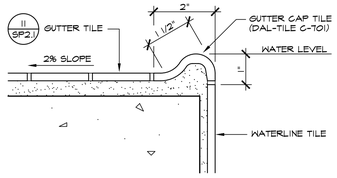
SHT. 142 OF 157 DWG. NO. 5-2606

PLOT DATE: 10/3/2022
FILE NAME: SP1.2.DWG



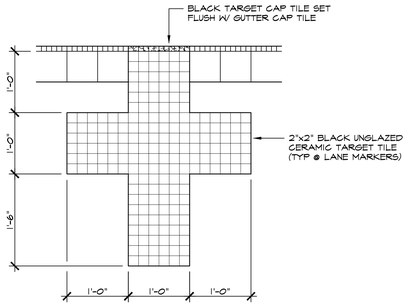
BOND WIRE 15

SCALE: NONE



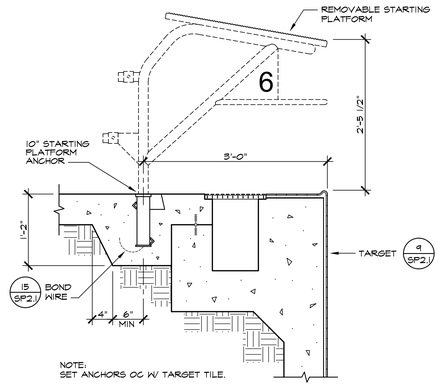
GUTTER CAP TILE 12

SCALE: HALF SIZE



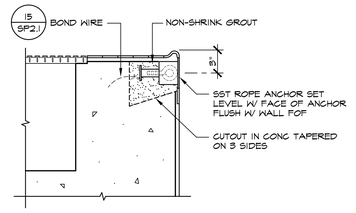
TARGET 9

SCALE: 1" = 1'-0"



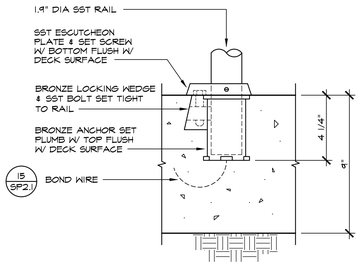
PLATFORM ANCHOR 6

SCALE: 1" = 1'-0"



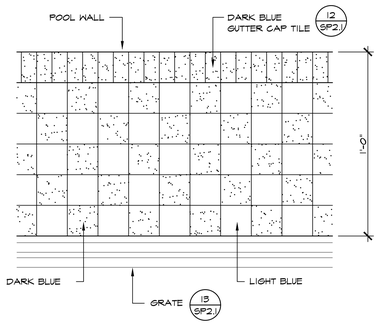
ROPE ANCHOR 3

SCALE: 1 1/2" = 1'-0"



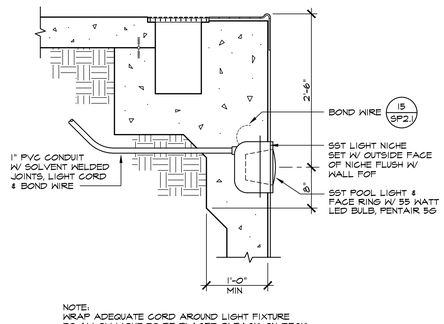
WEDGE ANCHOR 14

SCALE: 3" = 1'-0"



GUTTER TILE 11

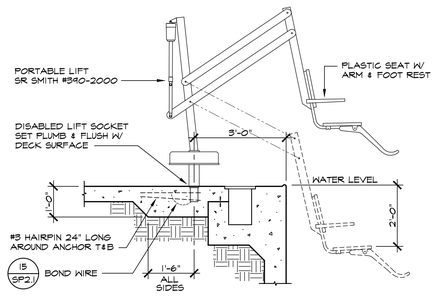
SCALE: 3" = 1'-0"



NOTE:
WRAP ADEQUATE CORD AROUND LIGHT FIXTURE TO ALLOW LIGHT TO BE PLACED 2' BACK ON DECK.

POOL LIGHT 8

SCALE: 1" = 1'-0"

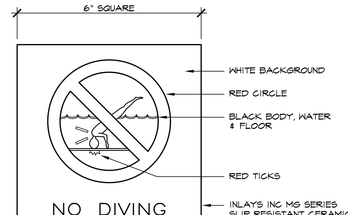


NOTES:

1. DISABLED ACCESS LIFT SHALL ASSIST PERSONS W/ DISABILITIES IN GAINING ENTRY INTO THE POOL & IN EXITING FROM THE POOL & SHALL CONFORM WITH THE PROVISIONS OF THE 2019 CALIFORNIA BUILDING CODE, SECTION 11B-1009.2.
2. LIFT SHALL PROVIDE UNASSISTED OPERATION W/ A 300 LB MIN CAPACITY.

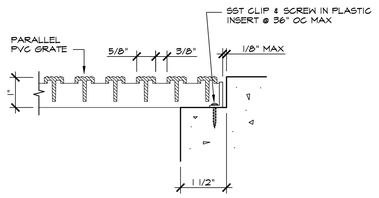
DISABLED LIFT 5

SCALE: 1/2" = 1'-0"



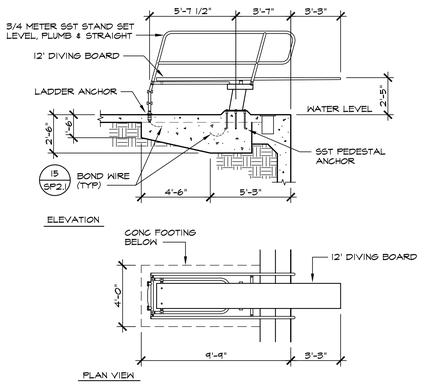
NO DIVING GRAPHIC 2

SCALE: HALF SIZE



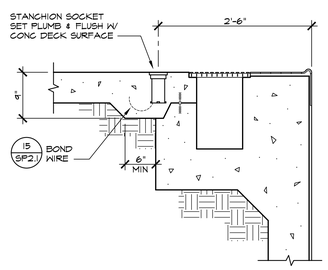
GUTTER GRATE 13

SCALE: HALF SIZE



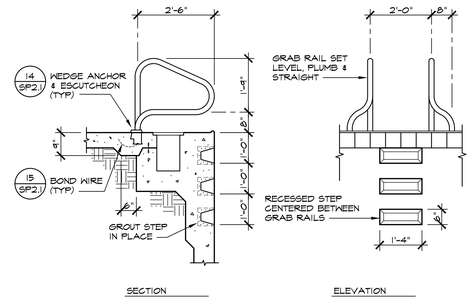
DIVING STAND 10

SCALE: 1/4" = 1'-0"



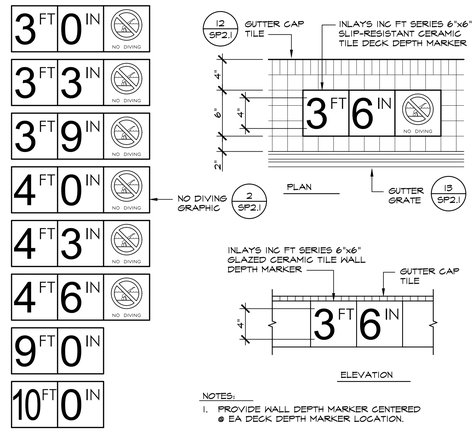
STANCHION SOCKET 7

SCALE: 1" = 1'-0"



GRAB RAILS 4

SCALE: 1/2" = 1'-0"



NOTES:

1. PROVIDE WALL DEPTH MARKER CENTERED @ EA DECK DEPTH MARKER LOCATION.

DEPTH MARKERS 1

SCALE: 1 1/2" = 1'-0"

CITY OF GARDENA — FREEWAY CITY — INCORPORATED 1930

PREPARED BY:

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LICENSED ARCHITECT — MADHAVAN M. MADHAVAN — C-25855 — REN. 11-30-23 — STATE OF CALIFORNIA

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. SD-15
ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING
SWIMMING POOL DETAILS
COMMUNITY AQUATICS & SENIOR CENTER
SP2.1

	INITIAL	DATE
DESIGNED BY	NM	9-30-22
DRAWN BY	JMAE	9-30-22
CHECKED BY	DJ	9-30-22

APPROVED BY:
DATE
DIRECTOR OF PUBLIC WORKS

SHT. 143 OF 157 DWG. NO. 5-2606

PLOT DATE: 11/30/2022

ABBREVIATIONS

AB	ANCHOR BOLT
ADDL	ADDITIONAL
ALT	ALTERNATE
APA	AMERICAN PLYWOOD ASSOCIATION
ARCH	ARCHITECTURAL
AWPA	AMERICAN WOOD PRESERVERS ASSOCIATION
B	BOTTOM
BLKG	BLOCKING
BM	BEAM
BN	BOUNDARY NAIL
BOF	BOTTOM OF FOOTING
BRG	BEARING
BTN	BETWEEN
BOT	BOTTOM
CBC	CALIFORNIA BUILDING CODE
CIP	CAST-IN-PLACE
CJ	CEILING JOIST
CL	CENTER LINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
DBL	DOUBLE
DF	DOUGLAS FIR/LARCH
DL	DEAD LOAD
DP	DEEP
DIA	DIAMETER
DIM	DIMENSION
DO	DITTO (REPEAT)
DWG	DRAWING
DWL	DOWEL
E	EXISTING
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMBED	EMBEDMENT
EN	EDGE NAIL
EQ	EQUAL OR EQUIVALENT
ES	EACH SIDE
EW	EACH WAY
EXT	EXTERIOR
FA	FRAMING/SHEAR CONNECTOR
FDN	FOUNDATION
FF	FINISHED FLOOR
FJ	FLOOR JOIST
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FRM	FRAMING
FRT	FIRE-RETARDANT TREATED
FS	FAR SIDE
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GLB	GLUED LAMINATED BEAM
GR	GRADE
H	HORIZONTAL
HDR	HEADER
HGR	HANGER
HT	HEIGHT
HORIZ	HORIZONTAL
HSH	HORIZONTALLY SLOTTED HOLES
ID	INSIDE DIAMETER
IF	INSIDE FACE
I JST	I-JOIST
INT	INTERIOR
IOR	INSPECTOR OF RECORD
JST	JOIST
JT	JOINT
LDGR	LEDGER
LL	LIVE LOAD
LSL	TIMBERSTRAND
LTWT	LIGHT WEIGHT
LVL	MICROLLAM
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
NIC	NOT IN CONTRACT
NO	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORIG	ORIGINAL
OSB	ORIENTED STRAND BOARD
PL	PLATE
PLCS	PLACES
PLYWD	PLYWOOD
PSL	PARALLAM
PT	PRESERVATIVE TREATED
PW	PLATE WASHER
R	RADIUS
REF	REFERENCE
REINF	REINFORCEMENT
REQD	REQUIRED
RF	ROOF
RT	RAFTER CROSSTIE
RR	ROOF RAFTERS
RW	RETAINING WALL
SCHED	SCHEDULE
SECT	SECTION
SEOR	STRUCTURAL ENGINEER OF RECORD
SEP	SEPARATION
SIM	SIMILAR
SN	SHEAR NAIL
SOG	SLAB ON GRADE
SP	SEE PLAN
SPEC	SPECIFICATION
SQ	SQUARE
STD	STANDARD
STGR	STAGGER
STIFF	STIFFENERS
STR	STRUCTURAL
STR I	STRUCTURAL I
T	TOP
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
THK	THICKNESS/THICK
THR	THREADED
TN	TOENAIL
TOP	TOP OF PARAPET
TOS	TOP OF SLAB
TOW	TOP OF WALL
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UNO	UNLESS NOTED OTHERWISE
V	VERTICAL
VERT	VERTICAL
VSH	VERTICAL SLOTTED HOLES
WD	WOOD
WP	WATERPROOF OR WORK POINT
WPJ	WEAKENED PLANE JOINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
W/	WITH
W/O	WITH OUT
WO	WHERE OCCURS
XS	EXTRA STRONG (STEEL PIPE)
XXS	DOUBLE EXTRA STRONG (STEEL PIPE)

GENERAL:

THE STRUCTURAL CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE STRUCTURE IS DESIGNED TO BE A STABLE UNIT AS A COMPLETED WHOLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGN, ERECT AND INSPECT TEMPORARY SHORES, BRACES, ETC. TO SUPPORT THE STRUCTURE AGAINST ALL ANTICIPATED LOADS INCLUDING GRAVITY, WIND AND LATERAL EARTH PRESSURE UNTIL ITS COMPLETION. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THESE METHODS OF CONSTRUCTION. CONSTRUCTION MATERIAL SHALL BE PLACED ON FRAMED FLOORS AND ROOFS SUCH THAT THE DESIGN LIVE LOADS ARE NOT EXCEEDED.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO STARTING CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE ARCHITECT.

WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE 2019 CALIFORNIA BUILDING CODE AND ALL OTHER APPLICABLE REGULATIONS.

NOTES AND DETAILS ON THE DRAWINGS TAKE PRECEDENCE OVER THE GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. "TYPICAL" DETAILS ARE NOT FLAGGED ON THE DRAWINGS, BUT APPLY UNLESS NOTED OTHERWISE.

APPROVED FABRICATORS SHALL BE LICENSED BY COUNTY OF LOS ANGELES DEPARTMENT OF BUILDING & SAFETY.

COORDINATION:

ALL DRAWINGS ARE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE DRAWINGS AND SPECIFICATIONS AMONG THE SUBCONTRACTORS PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES THAT ARE FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO START OF CONSTRUCTION. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ARCHITECT.

COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, VERIFYING THE LOCATION AND WEIGHT OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT AS WELL AS THE SIZE AND LOCATION OF ALL MECHANICAL OPENINGS IN ROOFS, FLOORS AND WALLS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, DO NOT PENETRATE ANY STRUCTURAL ELEMENTS SUCH AS BEAMS, COLUMNS, WALLS, SLABS, ETC. WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT.

COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, DETERMINING THE LOCATION OF ALL EXISTING UTILITY LINES THAT MAY INTERFERE WITH THE INSTALLATION OF THE NEW STRUCTURAL ELEMENTS. THE CONTRACTOR SHALL INFORM THE OWNER IF INTERFERENCE IS ENCOUNTERED. THE OWNER WILL DETERMINE IF THE LINES ARE TO BE REMOVED OR RELOCATED.

SHOP DRAWINGS:

SHOP DRAWING SUBMITTAL TO THE ENGINEER ARE REQUIRED FOR ALL STRUCTURAL WORK, UNLESS OTHERWISE AGREED TO BY THE ARCHITECT/ENGINEER. NO WORK SHALL PROCEED WITHOUT THE REVIEW AND APPROVAL OF SHOP/ERECTION/LAYOUT DRAWINGS BY THE ARCHITECT AND ENGINEER. ALL SUBMITTALS SHALL BE MADE IN A TIMELY MANNER ALLOWING ADEQUATE TIME AS NEEDED BY THE ARCHITECT AND ENGINEER FOR REVIEW.

THE CONTRACTOR SHALL REVIEW AND APPROVE ALL SHOP DRAWINGS PRIOR TO ENGINEERING REVIEW. SUBMISSIONS FOR ENGINEERING REVIEW SHALL INCLUDE A REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED.

INSPECTIONS:

THE OWNER SHALL EMPLOY AN INSPECTOR TO PROVIDE INSPECTION PER CBC SECTION 1701 AND LOCAL CODES. ALL SPECIAL INSPECTORS SHALL BE APPROVED BY COUNTY OF LOS ANGELES DEPARTMENT OF BUILDING & SAFETY.

CODE:

2019 CALIFORNIA BUILDING CODE

DESIGN LOADS:

POOL WALLS:

1. AT REST PRESSURE	88 PCF (TRIANGULAR)
2. SURCHARGE (100 PSF x0.30 AT-REST)	30 PSF (UNIFORM AT 8 FT. IN DEPTH)
3. SEISMIC EARTH LOAD	35 PCF (INVERTED TRAINGULAR AT RETAINING GREATER THAN 6 FT.)

SEISMIC:

SITE CLASS .... D

SDs 1.196

FOUNDATION:

GEOTECHNICAL REPORT BY:
SOUTHERN CALIFORNIA GEOTECHNICAL
22885 SAVI RANCH PARKWAY, SUITE E
YORBA LINDA, CA 92887

PROJECT NO. 21G242-1
NOVEMBER 18, 2021

ALLOWABLE SOIL BEARING PRESSURE:
2000 PSF NET ALLOWABLE SOIL BEARING PRESSURE
18" MIN. DEPTH, SBC MAY BE INCREASED BY 1/3 FOR SEISMIC

BACKFILL NOTES:

DO NOT PLACE BACKFILL BEHIND POOL WALLS BEFORE CONCRETE HAS REACHED FULL DESIGN STRENGTH. BACKFILL OPERATION SHALL NOT IMPART LATERAL PRESSURE AGAINST POOL WALLS. USE VERTICAL COMPACTION EQUIPMENT UNDER DIRECTION OF GEOTECHNICAL ENGINEER. WHEEL OR TRACK COMPACTION OF SOIL BEHIND POOL WALL IS NOT ALLOWED WITHOUT ADEQUATE TEMPORARY BRACING. THE CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS AND INSTALLATION OF SUCH BRACING.

CONCRETE:

CONCRETE CONSTRUCTION SHALL CONFORM WITH THE LATEST EDITION OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". SUBMIT MIX DESIGNS FOR EACH CLASS OF CONCRETE.

CONCRETE CONTAINING SUPERPLASTICIZING ADMIXTURE SHALL HAVE A SLUMP NOT EXCEEDING 3", TO BE FIELD VERIFIED, PRIOR TO ADDING ADMIXTURE, AND NOT EXCEEDING 8" AT PLACEMENT. ADDITION OF WATER TO A MIX WITH INSUFFICIENT SLUMP WILL NOT BE PERMITTED.

MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THAT SLABS ON GRADE NEED BE VIBRATED ONLY AROUND UNDER-FLOOR DUCTS, ETC.

SHOT PINS AT CURBS AND SLAB EDGES ARE NOT ALLOWED. THE USE OF EXPANSION ANCHORS AT CURBS IS NOT ALLOWED.

MINIMUM CONCRETE DESIGN STRENGTH SHALL BE AS FOLLOWS:

FOOTINGS	4000 PSI @ 28 DAYS	HARDROCK (145 PCF)
SLAB-ON-GRADE	4000 PSI @ 28 DAYS	HARDROCK
STRUCTURAL SLAB	4000 PSI @ 28 DAYS	HARDROCK
CONC. WALL	4000 PSI @ 28 DAYS	HARDROCK

REINFORCING STEEL:

DEFORMED BARS:

ASTM A615 GRADE 40 FOR #3 AND GRADE 60 FOR #4 AND LARGER. REINFORCING TO BE WELDED SHALL BE ASTM A706, GRADE 60, LOW ALLOY.

CLEAR CONCRETE COVERAGE (APPLIES UNLESS NOTED OTHERWISE):
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH --------- 3"
FORMED CONCRETE EXPOSED TO EARTH OR WEATHER ---------------- 2"
FORMED CONCRETE NOT EXPOSED TO EARTH OR WEATHER ------------- 1 1/2"
FROM TOP SURFACE OF SLAB ON GRADE ----------------------- 1 1/2"
CONCRETE FILL OVER METAL DECK -------------------------- 1"

WELDING:

UNLESS NOTED OTHERWISE, WELDING OF REINFORCING STEEL IS PROHIBITED. WHERE WELDING IS NOTED, WELD IN ACCORDANCE WITH AWS D1.1 USING E90 SERIES ELECTRODES. SUBMIT MILL TEST REPORTS ON THE REINFORCING TO BE WELDED AND THE PROPOSED WELDING PROCEDURE. (WPS) IN CONFORMANCE W/ 2001 CBC & AWS D1.4.

LAP SPLICES IN CONCRETE:

SEE TYPICAL DETAIL FOR LAP SPLICES IN CONCRETE BEAMS, WALLS, SLABS AND FOOTINGS. (UNLESS NOTED OTHERWISE, LAP SPLICES IN CONCRETE BEAMS, WALLS, SLABS AND FOOTINGS SHALL BE CLASS "B" TENSION LAP SPLICES AND LAP SPLICES IN CONCRETE COLUMNS SHALL BE STANDARD COMPRESSION LAP SPLICES PER LATEST EDITION OF ACI 318. STAGGER ALTERNATE SPLICES A MINIMUM OF ONE LAP LENGTH.) LAPS IN WELDED WIRE FABRIC SHALL BE MADE SO THAT THE OVERLAP MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF CROSS WIRES PLUS 2 INCHES. ALL SPLICE LOCATIONS SUBJECT TO APPROVAL.

PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF FOOTINGS AND WALLS. SPACING SHOWN FOR REINFORCING BARS ARE MAXIMUM ON CENTERS. ALL BARS PER CRSI SPECIFICATIONS AND HANDBOOK. DOWEL ALL VERTICAL REINFORCING TO THE FOUNDATION. CONCRETE COLUMN DOWEL EMBEDMENT SHALL BE A STANDARD COMPRESSION DOWEL EMBEDMENT LENGTH ACCORDING TO THE LATEST EDITION OF ACI 318. SECURELY TIE ALL BARS IN POSITION PRIOR TO PLACING CONCRETE. SUPPORT SLAB REINFORCEMENT WITH CONCRETE BLOCKS OR SUPPORT CHAIRS. REINFORCING SHALL NOT BE SUPPORTED BY STAKES DRIVEN INTO THE GROUND.

SHOTCRETE NOTES:

1. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE IN A MANNER THAT PREVENTS ANY MOVEMENT DURING THE WET MIX SHOTCRETING.
2. THE HEIGHT OF A LAYER SHALL BE LIMITED TO NOT MORE THAN THREE FEET AND A SUCCEEDING LAYER SHALL NOT BE PLACED IN LESS THAN THREE HOURS. NO SLOUGHING OR SAGGING SHALL BE PERMITTED.
3. REFER TO DRAWINGS FOR PLACEMENT OF DOWEL AND REINFORCEMENT.
4. REFER TO DRAWINGS FOR SHOTCRETE COLD JOINT DETAIL.
5. THE MINIMUM SLUMP SHALL BE 1½" AND THE MAXIMUM SLUMP SHALL BE 2½". SLUMP SHALL BE MEASURED AT THE POINT OF DISCHARGE FROM THE MIXER, EXCEPT THE BUILDING INSPECTOR MAY REQUIRE SLUMP TESTS AT THE DISCHARGE POINT WHERE WATER MAY HAVE BEEN ADDED.
6. A CAPABLE NOZZLEMAN'S HELPER WITH AN AIR BLOW PIPE SHALL BE PROVIDED TO ASSIST THE NOZZLEMAN IN KEEPING ALL REBOUND BUILD-UP OUT OF THE WORK.
7. ADDITIONAL WORKERS MAY BE REQUIRED TO TAKE THE REBOUND FROM THE WORK IF THE REBOUND CANNOT BE REMOVED BY THE AIR BLOW PIPE.
8. NO KEYWAYS OR EMBEDMENTS SHALL BE PLACED IN FRONT FACE THAT WILL INTERFACE WITH THE STREAM FROM THE NOZZLE.
9. THE CONTRACTOR AGREES TO PROVIDE A DESIGNATED LIAISON BETWEEN HIS CREW, THE DEPUTY INSPECTOR AND THE BUILDING INSPECTOR.
10. THE DEPUTY INSPECTOR SHALL BE INTERVIEWED AND APPROVED BY DEPARTMENT REPRESENTATIVES PRIOR TO INSPECTING THE WORK AT THE JOB SITE AND ONE DEPUTY SHALL BE ASSIGNED TO EACH NOZZLE.
11. RIGID OR OTHER APPROVED BACKING SHALL BE PLACED AGAINST THE EARTH WHERE THERE IS ANY LIKELIHOOD OF SOIL BEING DISLODGED IN SUFFICIENT QUANTITY TO DAMAGE THE CONCRETE DURING THE APPLICATION OF WET MIX SHOTCRETE. RIGID OR OTHER APPROVED BACKING SHALL BE USED WHERE A VOID IN THE EMBANKMENT IS TO BE BRIDGED.
12. IN THE EVENT THAT A PREVIOUSLY PRESUMED SOLID EMBANKMENT SHOULD SLOUGH OR SHED DIRT IN SUFFICIENT QUANTITY TO DAMAGE THE CONCRETE, THE WET MIX SHOTCRETE PLACEMENT WORK IN THAT AREA SHALL CEASE UNTIL A RIGID BACKING IS INSTALLED AND ANY CONTAMINATED SHOTCRETE IS REMOVED.

GENERAL NOTES FOR STRUCTURAL OBSERVATION:

1. STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM IN ACCORDANCE WITH 2019 CBC CHAPTER 17. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEMS AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR.
2. THE OWNER SHALL EMPLOY A CIVIL OR STRUCTURAL ENGINEER OR ARCHITECT TO PERFORM THE STRUCTURAL OBSERVATION. THE ENGINEER OR ARCHITECT SHALL BE REGISTERED OR LICENSED IN THE STATE OF CALIFORNIA. THE DEPARTMENT OF BUILDING AND SAFETY RECOMMENDS THE USE OF THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN WHEN THEY ARE INDEPENDENT OF THE CONTRACTOR.
3. THE STRUCTURAL OBSERVER SHALL PROVIDE EVIDENCE OF EMPLOYMENT BY THE OWNER. A LETTER FROM THE OWNER OR A COPY OF THE AGREEMENT FOR SERVICES SHALL BE SENT TO THE BUILDING INSPECTOR BEFORE THE FIRST SITE VISIT. THE STRUCTURAL OBSERVER SHALL ALSO INFORM THE OWNER OF THE REQUIREMENTS FOR A PRECONSTRUCTION MEETING AND SHALL PRESIDE OVER THIS MEETING.
4. THE OWNER OR OWNER'S REPRESENTATIVE SHALL COORDINATE AND CALL FOR A MEETING BETWEEN THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS AND DEPUTY INSPECTORS. THE PURPOSE OF THE MEETING SHALL BE IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS. A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT SUBMITTED TO THE BUILDING INSPECTOR.
5. THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM, THE FOLLOWING SIGNIFICANT CONSTRUCTION STAGES REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER.

   CONSTRUCTION STAGES ELEMENTS/CONNECTIONS TO BE OBSERVED

   a) PRIOR TO CONCRETE PLACEMENT/FOUNDATION REINFORCEMENT AND ANCHOR BOLTS (IF ANY)
   b) STRUCTURAL SLAB REINFORCEMENT
6. THE STRUCTURAL OBSERVER SHALL PREPARE A REPORT ON THE DEPARTMENT FOR EACH SIGNIFICANT STAGE OF CONSTRUCTION OBSERVED. THE ORIGINAL OF THE OBSERVATION REPORT SHALL BE SENT TO THE BUILDING INSPECTOR'S OFFICE AND SHALL BE SIGNED AND SEALED (WET STAMP) BY THE RESPONSIBLE STRUCTURAL OBSERVER. ONE COPY OF THE OBSERVATION REPORT SHALL BE ATTACHED TO THE APPROVED PLANS. THE COPY ATTACHED TO THE PLANS NEED NOT BE SEALED BUT SHALL BE SIGNED BY THE RESPONSIBLE STRUCTURAL OBSERVER OR THEIR DESIGNEE. COPIES OF THE REPORT SHALL ALSO BE GIVEN TO THE OWNER, CONTRACTOR, AND DEPUTY INSPECTOR.
7. A FINAL OBSERVATION REPORT MUST BE SUBMITTED WHICH SHOWS THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND THE STRUCTURAL SYSTEM GENERALLY CONFORMS WITH THE APPROVED PLANS AND SPECIFICATIONS. THE DEPARTMENT OF BUILDING AND SAFETY WILL NOT ACCEPT THE STRUCTURAL WORK WITHOUT THIS FINAL OBSERVATION REPORT AND THE CORRECTION OF SPECIFIC DEFICIENCIES NOTED DURING NORMAL BUILDING AND DEPUTY INSPECTION.
8. THE STRUCTURAL OBSERVER SHALL SEND THE ORIGINAL OBSERVATION REPORT TO THE FOLLOWING INSPECTION OFFICE:

   INSPECTION GROUP NAME:
   STREET ADDRESS:

   CA, ZIP CODE:
9. WHEN THE OWNER ELECTS TO CHANGE THE STRUCTURAL OBSERVER OF RECORD, THE OWNER SHALL:

   A. NOTIFY THE BUILDING INSPECTOR IN WRITING BEFORE THE NEXT INSPECTION.
   B. CALL AN ADDITIONAL PRECONSTRUCTION MEETING, AND.
   C. FURNISH THE REPLACEMENT STRUCTURAL OBSERVER WITH A COPY OF ALL PREVIOUS OBSERVATION REPORT.

   THE REPLACEMENT STRUCTURAL OBSERVER SHALL APPROVE THE CORRECTION OF THE ORIGINAL OBSERVED DEFICIENCIES UNLESS OTHERWISE APPROVED BY PLAN CHECK SUPERVISION. THE POLICY OF THE DEPARTMENT SHALL BE TO CORRECT ANY PROPERLY NOTED DEFICIENCIES WITHOUT CONSIDERATION OF THEIR SOURCE
10. THE ENGINEER OR ARCHITECT OF RECORD SHALL DEVELOP ALL CHANGES RELATING TO THE STRUCTURAL SYSTEMS. THE BUILDING DEPARTMENT SHALL REVIEW AND APPROVE ALL CHANGES TO THE APPROVED PLANS AND SPECIFICATIONS.

SPECIAL INSPECTIONS:

CONTINUOUS DEPUTY INSPECTION IS REQUIRED PER CHAPTER 17, 2019 CBC, FOR THE FOLLOWING:

1) FOOTING EXCAVATIONS SHALL BE INSPECTED & APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO PLACING ANY FORMWORK, REINF., OR CONCRETE.
2) ALL CONCRETE PLACEMENT & VERIFICATION OF CONCRETE REINFORCEMENT.

ALL SPECIAL INSPECTORS SHALL REPORT TO THE IOR AND SHALL BE APPROVED BY COUNTY OF LOS ANGELES DEPARTMENT OF BUILDING & SAFETY.

SUBMITTAL REQUIREMENTS

CATEGORY	REQUIRED DOCUMENTATION
CONCRETE REINF.	SHOP DRAWINGS & MILL CERT.
CONCRETE	MIX DESIGNS

EXPANSION ANCHOR BOLTS - CONCRETE:

ALL NEW EXPANSION BOLTS NOTED IN DRAWINGS ARE TO BE DEWALT POWER-STUD+SD2 AND SHALL BE DESIGNED AND INSTALLED PER ESR-2502 U.N.O.

ALL FIELD INSTALLED CONCRETE EXPANSION ANCHORS SHALL BE APPROVED FOR THE TYPE AND INSTALLATION FOR SPECIFIED APPLICATION AND MATERIALS. ALL BOLTS SHALL HAVE AN APPROVED ICC-ES REPORT NUMBER.

WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING ANCHORS INTO EXISTING PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED) LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATIOIN. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR.

ALL DRILLED HOLES SHALL BE BLOWN OUT WITH COMPRESSED AIR COMPLETELY BEFORE BOLT INSTALLATION.

EXPANSION BOLTS SHALL NOT BE INSTALLED INTO CONCRETE PATCHES, GROUT POCKETS, OR OTHERWISE INADEQUATE CONCRETE SUBSTRATE. WHERE AN ANCHOR IS SHOWN INTO SUCH MATERIALS THE SEOR SHALL BE NOTIFIED AND CONSTRUCTION SHALL WAIT FOR FURTHER INSTRUCTION.

ALL WALL ANCHOR TIES USING EXPANSION BOLT ANCHORS SHALL BE INSTALLED TIGHT TO THE WALL OR LEDGER. THERE SHALL BE NO GAP BETWEEN THE NUT AND STRAP OR STRAP AND WALL/LEDGER.

ALL WALL ANCHORS SHALL BE PROTECTED FROM WEATHER EXPOSURE. ANY EXPOSED EXTERIOR ANCHOR BOLTS SHALL BE STAINLESS STEEL.

PERIODIC SPECIAL INSPECTION IS REQUIRED DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, ANCHOR SPACING, EDGE DISTANCE, CONCRETE MEMBER THICKNESS, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT, AND ADHERENCE TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

ANY PANEL JOINTS, COLD JOINTS, OR WALL ENDS THAT OCCUR WITHIN 1.5 X EMBEDMENT OF THE ANCHOR SHALL BE REPORTED TO THE SEOR UNLESS THE MINIMUM EDGE DISTANCE IS SPECIFICALLY DETAILED AND SHOWN IN A DETAIL.

ALL ANCHORS SHALL BE TORQUED AS FOLLOWS FOR PROPER INSTALLATION: (HARDROCK OR LIGHTWEIGHT CONCRETE)

BOLT DIAMETER (IN) -POWER-STUD+SD2	3/8"	1/2"	5/8"	3/4"	-
TORQUE (FT-LBS)	20	40	80	110	-

APPLY PROOF TEST LOADS TO ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE THE NUT AND INSTALL A THREADED COUPLER NUT TO THE SAME TIGHTNESS OF THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY LOAD.

MINIMUM ANCHOR EMBEDMENT AND EDGE DISTANCE ARE AS FOLLOWS:

BOLT DIAMETER (IN) -POWER-STUD+SD2	3/8"	1/2"	5/8"	3/4"	-
MIN. EMBEDMENT	2"	2"	3 1/4"	3 3/4"	-
MIN. EDGE DISTANCE	2 1/2"	2 3/4"	4 1/4"	5"	-

TENSION TEST NOTES WHEN APPLICABLE:

REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).

TEST EQUIPMENT SHALL BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.

THE FOLLOWING TEST LOADS SHALL BE USED: FOR 3000 PSI CONCRETE

BOLT DIAMETER (IN) -POWER-STUD+SD2	3/8"	1/2"	5/8"	3/4"	-
TENSION LOAD (LBS)	1401	1605	3325	4120	-

THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS: HYDRAULIC RAM METHOD: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE. TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN ONE-QUARTER (1/4) TURN FOR 3/8" AND ONE-HALF (1/2) TURN FOR 1/2" EXPANSION ANCHOR AND UP.

TESTING BASED ON THE ICC-ESR SHOULD OCCUR 24 HOURS MINIMUM AFTER INSTALLATION OF THE SUBJECT ANCHORS.

IF ANY ANCHOR FAILS TESTING, NOTIFY THE SEOR FOR FURTHER TESTING FREQUENCY.

SHEET INDEX:

PREPARED BY:
COFFMAN ENGINEERS
16133 Ventura Boulevard, Suite 1010
Encino, CA 91436
ph 818.285.2650
www.coffman.com

REGISTERED PROFESSIONAL ENGINEER PAUL VAN BENSCHOTEN No. S-4715 Exp. 12-31-23 STRUCTURAL STATE OF CALIFORNIA

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING
GENERAL NOTES
COMMUNITY AQUATICS & SENIOR CENTER
SP3.11

	INITIAL	DATE
DESIGNED BY	JNP	09-30-22
DRAWN BY	JNP	09-30-22
CHECKED BY	PVB	09-30-22

APPROVED BY:
DATE DIRECTOR OF PUBLIC WORKS

SHT. 144 OF 157 DWG. NO. 5-2606

FILE PATH:
PLOT TIME:

Statement of Special Inspections

Project: *COMMUNITY AQUATIC AND SENIOR CENTER*
Location: *1654 West 160th Street, Gardena, CA 90247*
Owner: *County of Los Angeles*

Project Design Professionals		RDP (One only)
Architect	*Nachiappa M. Madhavan, AIA (C-25855)*	☐
Structural Engineer	*Paul Van Benschoten, SE (S-3390)*	☒
Geotechnical Engineer		☐
Mechanical Engineer		☐
Electrical Engineer		☐

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This *Statement of Special Inspections* encompass the following disciplines:

☒ Structural ☐ Mechanical/Electrical/Plumbing
☐ Architectural ☐ Other: ______

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.
Interim Report Frequency: *Weekly* or ☐ per attached schedule.

Prepared by:

Paul Van Benschoten, Coffman Engineers
(type or print name)

Signature Date

Design Professional Seal

Owner's Authorization: Building Official's Acceptance:

Signature Date Signature Date

Project: *Community Aquatic and Senior Center*
Location: *1654 West 160th Street, Gardena, CA 90247*

Special Requirements for Seismic & Wind Resistance

This Statement of Special Inspections includes the following building systems:

☒ Soils and Foundations
☒ Cast-in-Place Concrete
☐ Precast Concrete
☐ Masonry
☐ Structural Steel
☐ Cold-Formed Steel Framing
☐ Spray Fire Resistant Material
☐ Wood Construction
☐ Exterior Insulation and Finish System
☐ Mechanical & Electrical Systems
☐ Architectural Systems
☐ Special Cases

Approved Agencies	Name of Individual and Firm	Address, Telephone, e-mail
1. **Special Inspection Coordinator**		
2. Inspector		
3. Inspector		
4. Testing Agency		
5. Testing Agency		
6. Other		

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Project: *Community Aquatic and Senior Center*
Location: *1654 West 160th Street, Gardena, CA 90247*

Special Requirements for Seismic & Wind Resistance

Quality Assurance for Seismic Resistance

Seismic Design Category *D*
Seismic Requirements Necessary (Y/N) *N*
Structural Observation Required (Y/N) *Y*

Description of seismic force resisting system and designated seismic systems:

N/A

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) *110 MPH*
Wind Exposure Category *C*
Wind Requirements Necessary (Y/N) *N*
Structural Observation Required (Y/N) *N*

Description of wind force resisting system and designated wind resisting components:

N/A

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

Project: *Community Aquatic and Senior Center*
Location: *1654 West 160th Street, Gardena, CA 90247*

Construction Observation

Structural Observation

3.1.1 Structural Observation of construction for Seismic and/or Wind Resistance is required when indicated in the Special Requirements for Seismic and Wind Section above. The structural Observer shall, as a minimum, perform Structural Observation at the following Scheduled Intervals or Stages of Construction, and at the completion of the structural system.

Structural Observer: *Paul Van Benschoten, SE (S-4715) Coffman Engineers (818) 285-2650*

Item	Scheduled Interval or Stage of Construction
1	*Footings: excavations, reinforcement, formwork, bolts and embeds*
2	*Structural Slab On Grade reinforcing*
3	*Pool Wall reinforcing*

WORK REQUIRING SPECIAL INSPECTION AND STRUCTURAL OBSERVATION:

CBC 1704 and 1708			TYPE OF INSPECTION		STRUCT OBSERV
			CONTINUOUS	PERIODIC	
SOILS (TABLE 1704.7)	1.a	VERIFY MATERIALS BELOW FOOTINGS FOR DESIGN BEARING CAPACITY	-	x	GEO ENG
	b	VERIFY DEPTH OF EXCAVATION AND TYPE OF MATERIALS REACHED	-	x	GEO ENG
	c	VERIFY THE SUBGRADE AND SITE PREPARATIONS FOR CONTROLLED FILL	-	x	GEO ENG
	d	VERIFY MATERIALS USED, DENSITIES, LAYERED THICKNESS AND COMPACTION OF BACKFILLS	x		
	e	PERFORM CLASSSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS		x	
STEEL (TABLE 1704.3)	4.a	VERIFY ID MARKINGS AND MILL CERTIFICATIONS ON STEEL MEMBERS PER APPROVED PLANS	-	x	
	b	VERIFY MARKINGS / CERTIFICATIONS AND TOUGHNESS REQUIREMENTS OF FILLER MATERIALS	-	x	
	c	VERIFY MARKINGS AND CERTIFICATION OF HIGH STRENGTH BOLTS / NUTS & WASHERS	-	x	
	d	INSPECT THE INSTALLATION OF NON-SLIP CRITICAL BOLTED CONNECTIONS		x	
	e	COMPLETE / PARTIAL PENETRATION GROOVE WELDS AND FILLET WELDS >5/16"	x		
	f	SINGLE PASS FILLET WELDS ≤5/16" , FLOOR AND ROOF DECK WELDS	-	x	
	g	STRUCTURAL STEEL ERECTION - BRACING & STIFFENING / JOINT DETAILS AT EACH LOCATION	-	x	
CONCRETE (TABLE 1704.4)	5.a.	VERIFY AND INSPECT REINFORCING STEEL	-	x	
	b	VERIFY WELDABILITY AND INSPECT REINFORCING STEEL WELDING (PER AWS D1.4)	x		
	c	INSPECT BOLT INSTALLATION / EMBEDMENTS, BEFORE AND DURING PLACEMENT OF CONCRETE	x		
	d	VERIFY CONCRETE MIX DESIGN AND MOLDING OF COMPRESSION TEST SAMPLES	-	x	
	e	VERIFY THE SLUMP / AIR CONTENT AND TEMPERATURE OF FRESH CONCRETE DELIVERED	x	-	
	f	INSPECT CONCRETE PLACEMENT AND APPLICATION TECHNIQUES	x	-	
	g	VERIFY DIMENSIONS, SHAPE AND LOCATION OF CONCRETE MEMBER BEING FORMED	-	x	
MASONRY (TABLE 1704.5)	6.a	VERIFY / CONFIRM PREMIXED MORTAR	-	x	
	b	VERIFY SPECIFICATIONS FOR SIZE/GRADE/ TYPE OF MASONRY UNIT & REINFORCEMENT DETAILS	-	x	
	c	PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MASONRY JOINTS	-	x	
	d	PLACEMENT OF REINFORCEMENTS & CONNECTORS	-	x	
	e	VERIFY CLEANOUTS, GROUT SPACE CLEARANCES, CLEANLINESS AND MORTAR PROJECTIONS.	-	x	
	f	VERIFY WELDABILITY AND INSPECT REINFORCING STEEL WELDING (PER AWS D1.4)	x	-	
	g	PREPARING REQUIRED GROUT / MORTAR SPECIMENS AND/OR PRISMS FOR TESTING	x	-	
	h	INSPECT GROUT PLACEMENT	x	-	
LIGHT FRAMED 1704.6	7.a	VERIFY LUMBER SPECIES, GRADING, SIZE, MOISTURE CONTENT, SURFACE TREATMENT, CAMBER AND STRUCTURAL PANEL SHEATHING	-	x	
	b	INSPECT CERTIFICATES AND METAL STUD IDENTIFICATION, SECTION PROPERTIES AND FINISH COATING	-	x	
	c	VERIFY NAIL, STAPLE, SCREW, AND BOLT / FASTENER TYPE, GRADE AND LOCATION	-	x	
	d	VERIFY MATERIALS AND INSTALLATION DETAILS FOR HOLD-DOWN, STRAP, TIE ROD, ANCHOR; AND (PREFABRICATED) ENGINEERED SYSTEM / STRUCTURAL PANEL SHEATHING	-	x	
	e	IDENTIFY LATERAL SYSTEM AND LOAD PATH FOR LOCATION OF PLATES, SHEAR WALLS, DIAPHRAGMS, SQUASH BLOCKS, HOLD-DOWN AND STRAPPING BEAMS / COLUMNS		x	
	f	INSPECT AND VERIFY SEISMIC CONNECTIONS OF ITEM 7.e (ABOVE) FOR COMPLIANCE	-	x	
1707.3 & 1707.4	g	VERIFY STUD SPACING, BLOCKING, NAILING (FIELD & EDGE); OPENING / PENETRATION TREATMENT AND BOUNDARY ATTACHMENT CONDITIONS	-	x	
SEISMIC RESISTANCE 1707.1	8.a	INSTALLATION OF (CHEMICAL / EPOXY) ADHESIVE ANCHORS, RODS AND DOWELS	X		
	b	INSTALLATION AND TORQUE TESTING EXPANSION ANCHORS IN CONCRETE OR MASONRY	-	X	

CONCRETE INSPECTIONS & VERIFICATION

IBC Table 1704.4

VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	STRUCT OBSERV
1.	Inspection of reinforcing steel, including prestressing tendons, and placement.	---	X	
2.	Inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5b.	X	---	
3.	Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased.	X	---	
4.	Verifying use of required design mix.	---	X	
5.	At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	---	
6.	Inspection of concrete and shotcrete placement for proper application techniques.	X	---	
7.	Inspection for maintenance of specified curing temperature and techniques.	---	X	
8.	Inspection of prestressed concrete:	---	---	
	a. Application of prestressing forces.	X	---	
	b. Grouting of bonded prestressing tendons in the seismic-force-resisting system.	X	---	
9.	Erection of precast concrete members.	---	X	
10.	Verification of in-situ concrete strength, prior to stressing of tendons in posttensioned concrete and prior to removal of shores and forms from beams and structural slabs.	---	X	
11.	Inspect formwork for shape, location and dimensions of the concrete member being formed.	---	X	
12.		---	---	---
13.		---	---	---
14.				
15.				
16.				
17.				

FOUNDATION INSPECTIONS & VERIFICATION

VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	*ENGR* OBSERV
	SOILS - IBC Table 1704.7			
1.	Verify subgrade materials below the footing for design bearing capacity.	---	X	
2.	Verify depth of excavation and type of subgrade materials reached.	---	X	
3.	Perform classification and compaction testing of controlled backfill materials.		X	
4.	Verify materials used, layered thicknesses and compaction of back fills.	X		
5.	Verify the subgrade and site preparations for controlled fill.	---	X	
	PILE FOUNDATONS - IBC Table 1704.8			
6.	Verify pile sizes, lengths and material specifications for each location.	X	---	
7.	Determine capacities of test piles and conduct additional load tests, as required.	X	---	
8.	Observe driving operations and maintain complete and accurate records for each pile.	X	---	
9.	Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any pile damage.		---	
10.	For steel piles, perform additional inspections in accordance with Section 1704.3.	---	---	
11.	For concrete piles and concrete-filled piles, perform additional inspections in accordance with Section 1704.4.	---	---	
12.	For specialty piles, perform additional inspections as determined by the registered design professional in responsible charge.	---	---	
13.	For augered uncased piles and caisson piles, perform inspections in accordance with Section 1704.9.	---	---	
	PIER FOUNDATIONS - IBC Table 1704.9			
14.	Observe drilling operations to monitor and record - drilled lengths, diameters and bell size (if applicable) for each pier.	X	---	
15.	Verify placement locations and plumbness, confirm pier diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end bearing strata capacity.	X	---	
16.	For concrete piers, perform additional inspections in accordance with Section 1704.4.	---	---	
17.	For masonry piers, perform additional inspections in accordance with Section 1704.5.	---	---	
18.				
19.				

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STATE OF CALIFORNIA

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. 5D-15
ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

GENERAL NOTES
COMMUNITY AQUATICS & SENIOR CENTER
SP3.12

	INITIAL	DATE
DESIGNED BY	JNP	09-30-22
DRAWN BY	JNP	09-30-22
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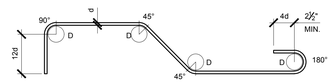
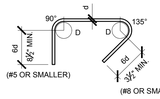
DATE DIRECTOR OF PUBLIC WORKS

SHT. 145 OF 157 DWG. NO. 5-2606

FILE PATH:
PLOT TIME:



TYPICAL HOOKS & BENDS



D = 6d FOR #3 THRU #8
D = 8d FOR #9 THRU #11
D = 10d FOR #14S & #18S
D = 4d FOR TIES & STIRRUPS (#5 OR SMALLER)

TIES & STIRRUPS

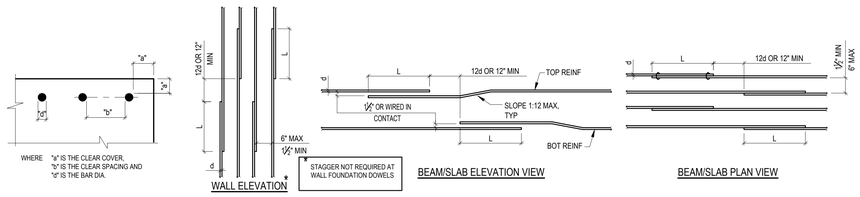
3 REINFORCING BAR DETAILS

LAP SPLICE SCHEDULE "CLASS B" (STRAIGHT BARS)																	
	CONCRETE STRENGTH f'c	BAR															
		#4		#5		#6		#7		#8		#9		#10		#11	
		TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
CLEAR COVER ≥ d AND CLEAR SPACING ≥ 2d	3000 PSI	37	29	47	36	56	43	81	63	93	72	105	81	118	91	131	101
	4000 PSI	33	25	41	31	49	37	71	54	81	62	91	70	102	79	113	87
	5000 PSI	29	23	36	28	43	34	63	49	72	56	81	63	92	70	102	78
OTHER CASES	3000 PSI	56	43	70	54	84	65	122	94	139	107	157	121	177	136	196	151
	4000 PSI	49	37	61	47	73	56	106	81	121	93	136	105	153	118	170	131
	5000 PSI	43	32	54	42	65	50	95	73	108	83	122	94	137	106	152	117

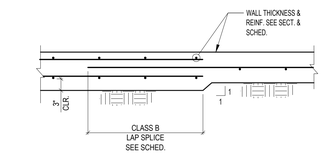
DEVELOPMENT LENGTH SCHEDULE "CLASS A" (STRAIGHT & HOOKED BARS)																	
		CONCRETE STRENGTH f'c	BAR														
			#4		#5		#6		#7		#8		#9		#10		#11	
			TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
STRAIGHT	CLEAR COVER ≥ d AND CLEAR SPACING ≥ 2d	3000 PSI	29	22	36	28	43	33	63	48	72	55	81	62	91	70	101	78
		4000 PSI	25	19	31	24	37	29	54	42	62	48	70	54	79	61	87	67
		5000 PSI	23	17	28	22	34	26	49	38	56	43	63	48	70	54	78	60
	OTHER CASES	3000 PSI	43	33	54	42	65	50	94	72	107	83	121	93	136	105	151	116
		4000 PSI	37	29	47	36	56	43	81	63	93	72	105	81	118	91	131	101
		5000 PSI	34	26	42	32	50	39	73	56	83	64	94	72	106	81	117	90
HOOK	STANDARD	3000 PSI	11		14		17		20		22		25		28		31	
		4000 PSI	10		12		15		17		19		22		25		27	
		5000 PSI	9		11		13		15		17		20		22		24	

NOTE:
1. T=TOP BAR, L=LAP SPLICE LENGTH
2. "d" INDICATES BAR DIAMETER.
3. ALL DIMENSIONS SHOWN IN TABLE ABOVE ARE IN INCHES.

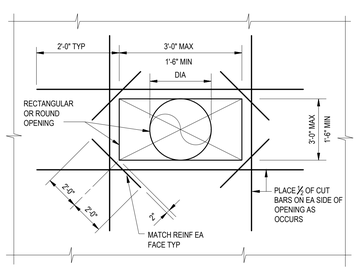
NOTES:
1. TABULATED VALUES AND NOTES ARE PER ACI318-14.
2. SPLICES SHALL BE CONTACT TENSION LAP SPLICES U.N.O.
3. LENGTHS SHOWN ARE FOR GRADE 60 UNCOATED BARS.
4. ALL LAP SPLICES SHALL BE CLASS B, UNLESS CLASS A IS SPECIFICALLY APPROVED BY THE ENGINEER.
5. THE SCHEDULES SHOWN ON THIS DETAIL APPLY TO NORMAL WEIGHT CONCRETE.
6. FOR LIGHTWEIGHT CONCRETE, INCREASE LAP SPLICE LENGTH BY 33%.
7. ALL HORIZONTAL AND VERITICAL SPLICES SHALL BE STAGGERED AS SHOWN BELOW WHERE POSSIBLE U.N.O. WHERE SPLICES ARE NOT STAGGERED THE LAP SPLICE LENGTH SHALL BE INCREASED BY 30%.
8. THE SMALLER BAR LAP LENGTH SHALL BE USED WHEN SPLICING BARS OF DIFFERENT SIZES.
9. TOP BARS ARE HORIZONTAL BARS PLACED SO THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
10. LAP LENGTHS SPECIFICALLY DETAILED ON DRAWINGS SHALL GOVERN IN LIEU OF THE LAP LENGTHS SCHEDULED. OTHERWISE, ALL DETAILING AND PLACEMENT OF REINFORCING SHALL COMPLY WITH THE LAP SPLICE SCHEDULES AND DETAILS.
11. BUNDLED BAR SPLICES:
    a) INDIVIDUAL BAR SPLICES WITHIN THE BUNDLE SHALL NOT OVERLAP EACH OTHER.
    b) INCREASE LAP LENGTH 20% AT THREE BAR BUNDLES.
    c) INCREASE LAP LENGTH 33% AT FOUR BAR BUNDLES.
12. FOR #14 AND #18 BARS, USE MECHANICAL SPLICE IN ACCORDANCE WITH ACI-318 REQUIREMENTS.
13. EPOXY COATED BAR DEVELOPMENT & SPLICES:
    HOOKS: INCREASE DEVELOPMENT & LAP LENGTH 20%.
13. CONT.
    STRAIGHT BARS:
    a) WHEN CONCRETE COVER IS LESS THAN 3d OR CLEAR SPACING IS LESS THAN 6d, INCREASE DEVELOPMENT & LAP LENGTH 50%.
    b) FOR OTHER CASES, INCREASE LAP LENGTH 20%.
14. HOOK PORTION OF SCHEDULE ASSUMES A STANDARD 90° HOOK.
15. SEISMIC CONDITIONS:
    a) SEISMIC DIAPHRAGM AND COLLECTOR BARS REQUIRE NO INCREASE TO HOOK OR LAP SPLICE LENGTHS.
    b) VERTICAL BARS OF SPECIAL REINFORCED CONCRETE WALLS SHALL HAVE A BOTTOM BAR LAP SPLICE INCREASED BY 25%.
    c) DEVELOPMENT LENGTHS AND LAP SPLICES FOR CONCRETE SPECIAL MOMENT RESISTING FRAMES ARE NOT COVERED BY THIS DETAIL AND MUST MEET ALL ACI 318 CHAPTER 18 REQUIREMENTS.



9 TYPICAL NORMAL WEIGHT CONCRETE REINFORCING LAP SPLICE SCHEDULE



8 DOUBLE TO SINGLE WALL REINFORCING TRANSITION PLAN



PLAN

13 POOL CONC WALL OPENING DETAIL

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REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. SD-15 ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING
TYPICAL CONCRETE DETAILS
COMMUNITY AQUATICS & SENIOR CENTER
SP3.13

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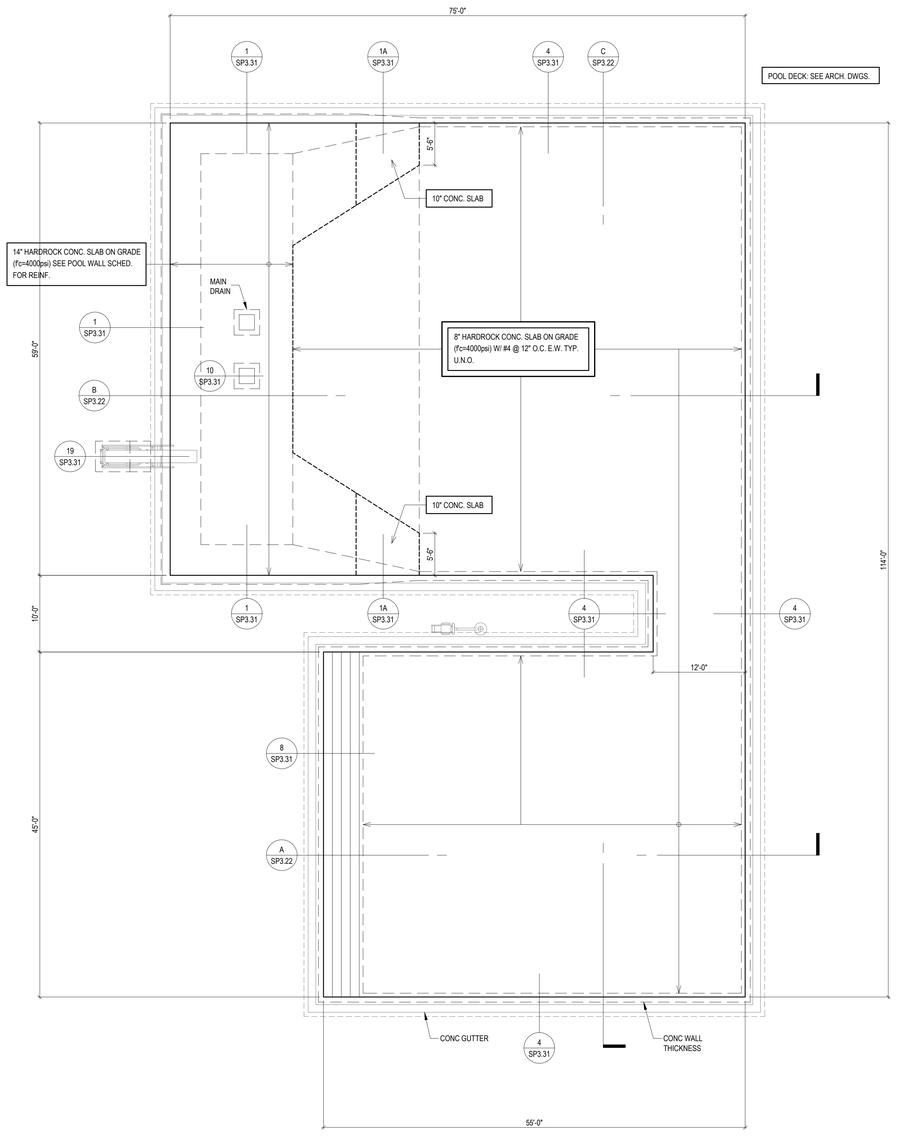
DATE DIRECTOR OF PUBLIC WORKS
SHT. 146 OF 157 DWG. NO. S-2606

PLOT DATE: 10/27/2022



NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEET SP3.11 THRU SP3.12.
2. FOR TYPICAL DETAILS SEE SHEET SP3.13.
3. 1'-0" MIN OVER-EXCAVATION BELOW BOTTOM OF FOOTING. SEE GEOTECHNICAL REPORT FOR REQUIREMENTS.
4. SEE ARCHITECTURAL DRAWINGS FOR POOL APPURTENANCES & OTHER INFORMATION.

LEGEND:

1. _ _ _ _ _ _ _ _ INDICATES SWIMMING POOL CONC. WALL ALONG PERIMETER.

POOL FOUNDATION PLAN

SCALE: 1/8"=1'-0"

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NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. SD-15
ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

POOL FOUNDATION PLAN

COMMUNITY AQUATICS & SENIOR CENTER
SP3.21

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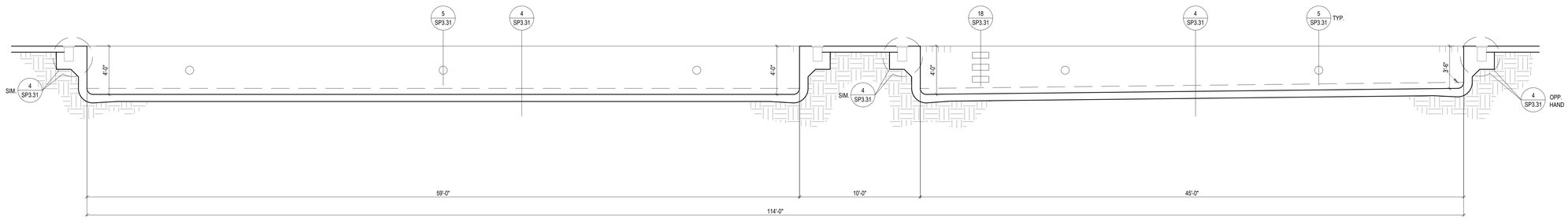
CHECKED BY	PVB	09-30-22

APPROVED BY:

DATE DIRECTOR OF PUBLIC WORKS

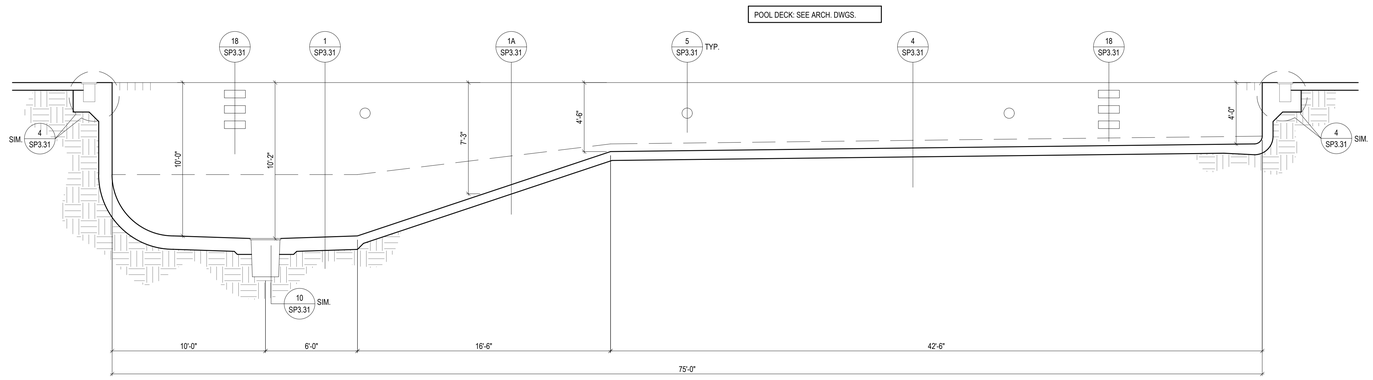
SHT. 147 OF 157 DWG. NO. S-2606

PLOT DATE: 01/27/2023



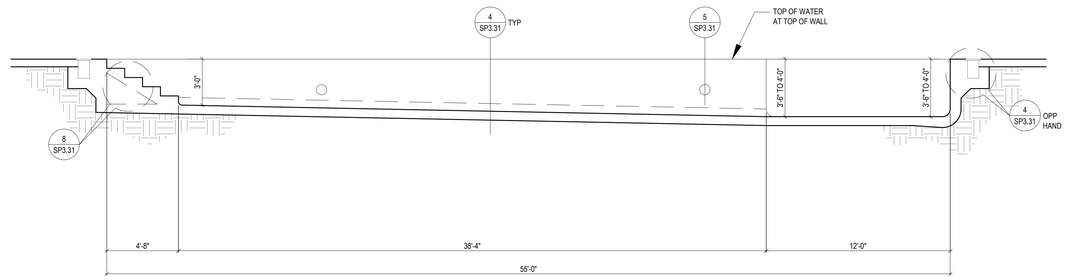
C POOL SECTION

1/4"=1'-0"



B POOL SECTION

1/4"=1'-0"



A POOL SECTION

1/4"=1'-0"

CITY OF GARDENA
FREEWAY CITY
INCORPORATED 1930

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NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. SD-15
ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

POOL SECTIONS

COMMUNITY AQUATICS & SENIOR CENTER

SP3.22

	INITIAL	DATE
DESIGNED BY	JNP	09-30-22
DRAWN BY	JNP	09-30-22
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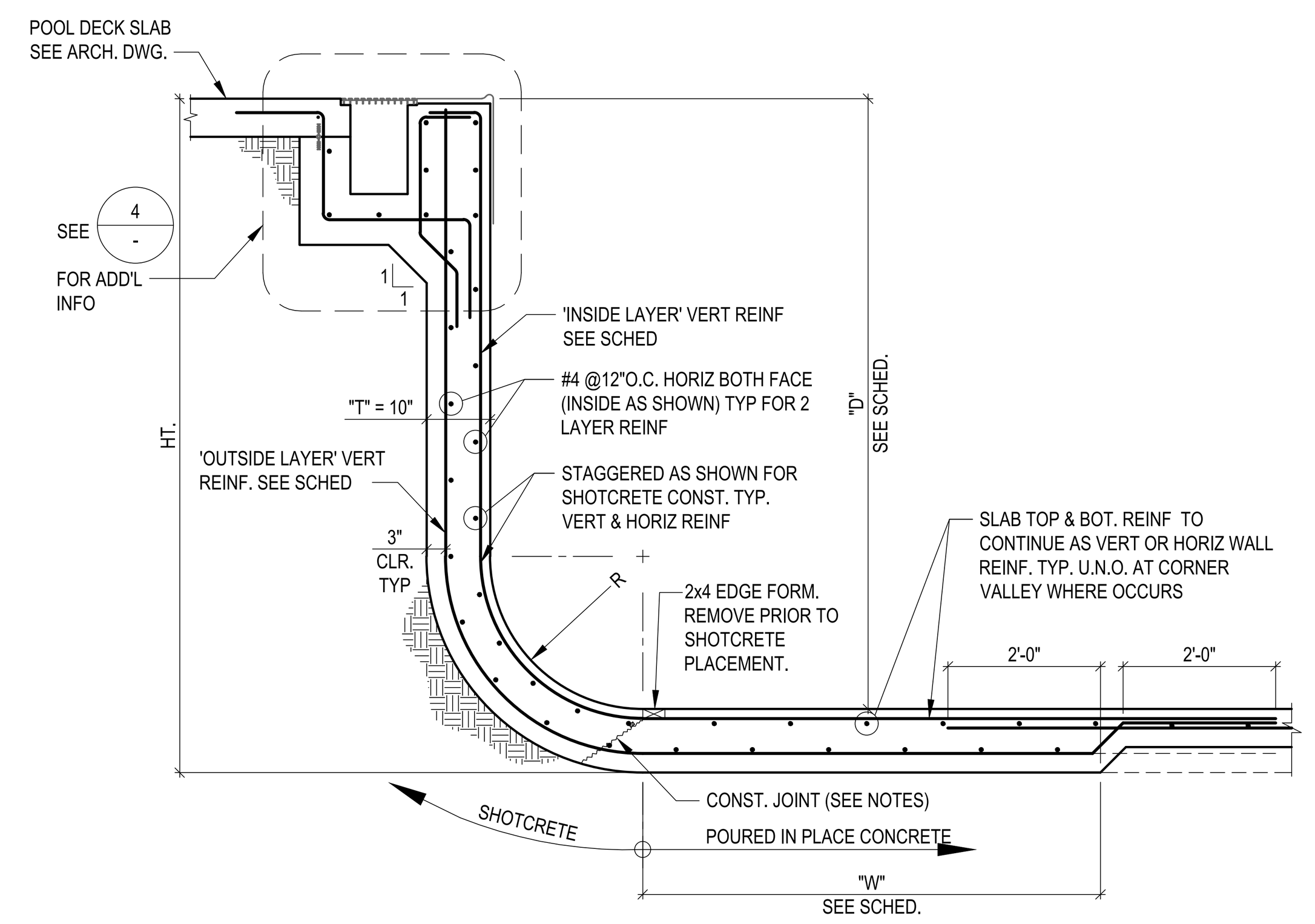
APPROVED BY:

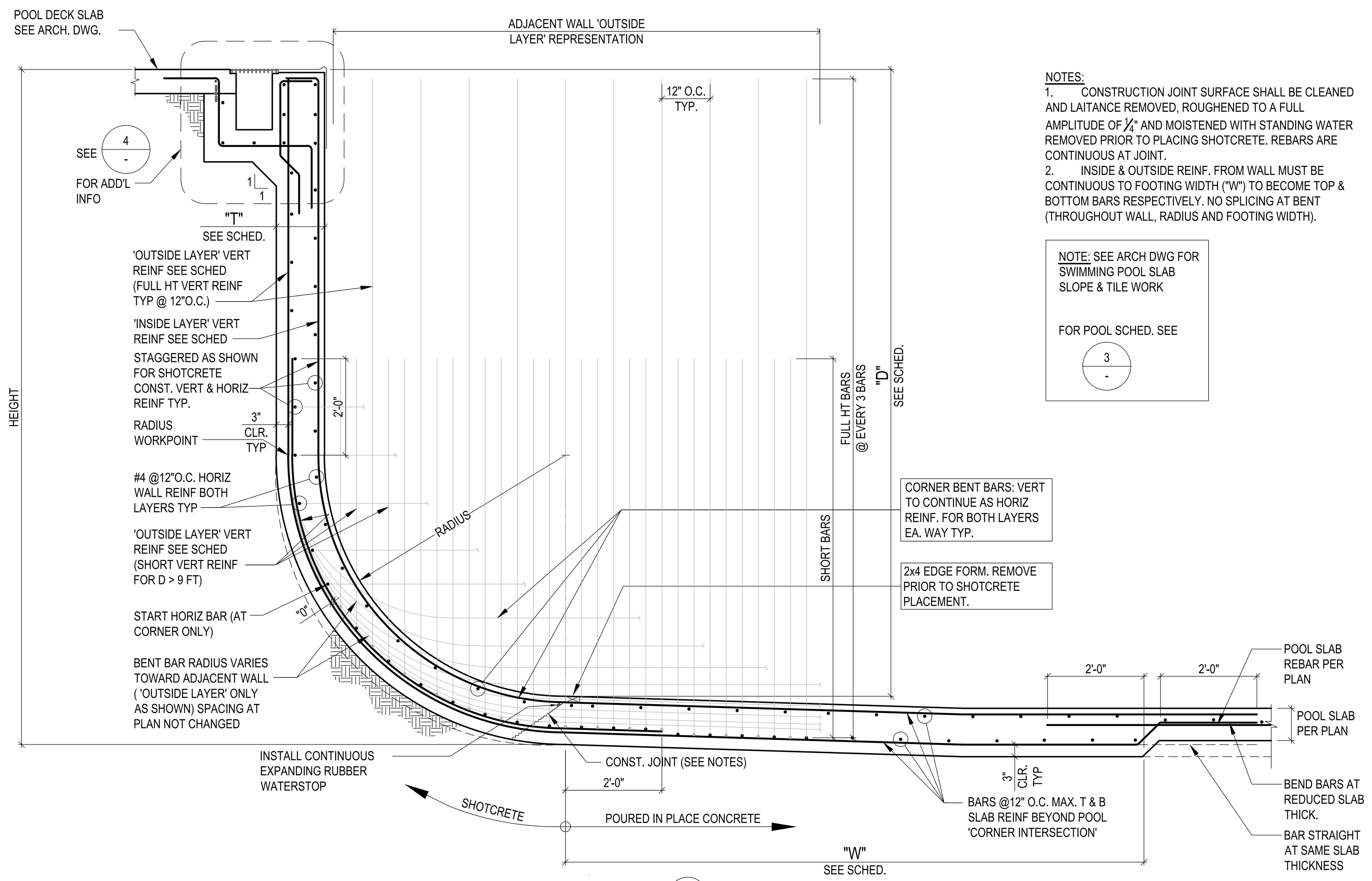
DATE DIRECTOR OF PUBLIC WORKS

SHT. 148 OF 157 DWG. NO. S-2606

PLOT DATE: 10/27/2022



SECTION 1A



SECTION 1

NOTES:
1. CONSTRUCTION JOINT SURFACE SHALL BE CLEANED AND LAITANCE REMOVED, ROUGHENED TO A FULL AMPLITUDE OF 1/4" AND MOISTENED WITH STANDING WATER REMOVED PRIOR TO PLACING SHOTCRETE. REBARS ARE CONTINUOUS AT JOINT.
2. INSIDE & OUTSIDE REINF. FROM WALL MUST BE CONTINUOUS TO FOOTING WIDTH ("W") TO BECOME TOP & BOTTOM BARS RESPECTIVELY. NO SPLICING AT BENT (THROUGHOUT WALL, RADIUS AND FOOTING WIDTH).

NOTE: SEE ARCH DWG FOR SWIMMING POOL SLAB SLOPE & TILE WORK

FOR POOL SCHED. SEE 3 / -

1 MAIN POOL WALL SECTION

1/2"=1'-0"

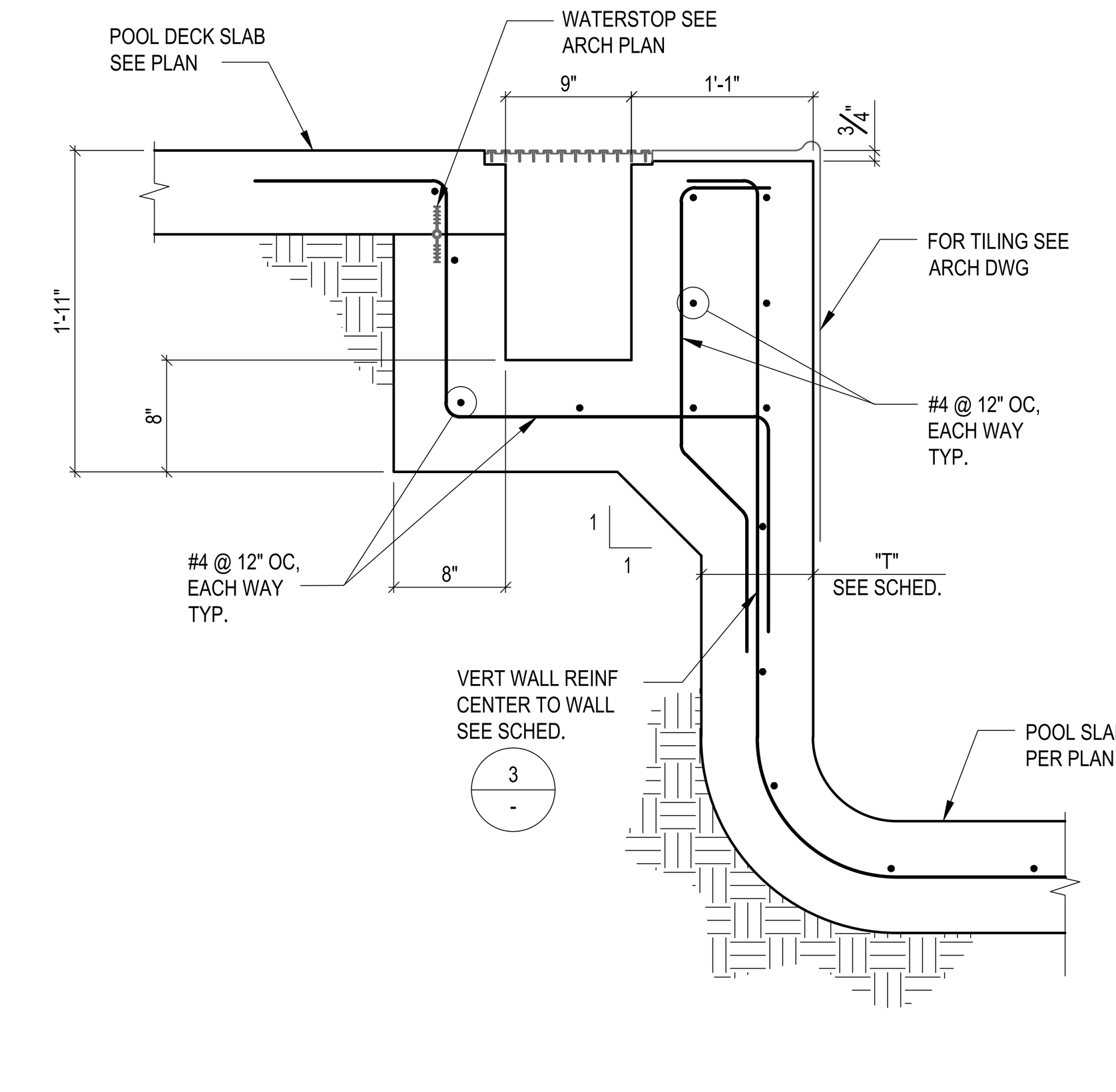
SHOTCRETE POOL WALL SCHEDULE

MAX. DEPTH OF WATER "D" (FT)	WALL THICKNESS "T" (IN.)	BENT RADIUS (FT)	FTG WIDTH "W" (FT)	VERT WALL REINF		
				OUTSIDE LAYER	CENTER	INSIDE LAYER
3.0	8	0.5	1	-	#5 @ 12"	-
3.5	8	0.5	2	-	#5 @ 12"	-
4.5	8	0.5	3	-	#5 @ 12"	-
7.25	10	2	8	#7 @ 6"	-	#5 @ 12"
10	14	4	12	#7 @ 4" ●	-	#5 @ 12"

● FULL HT. BARS @ 12" O.C. SEE SECTION 1 & 11

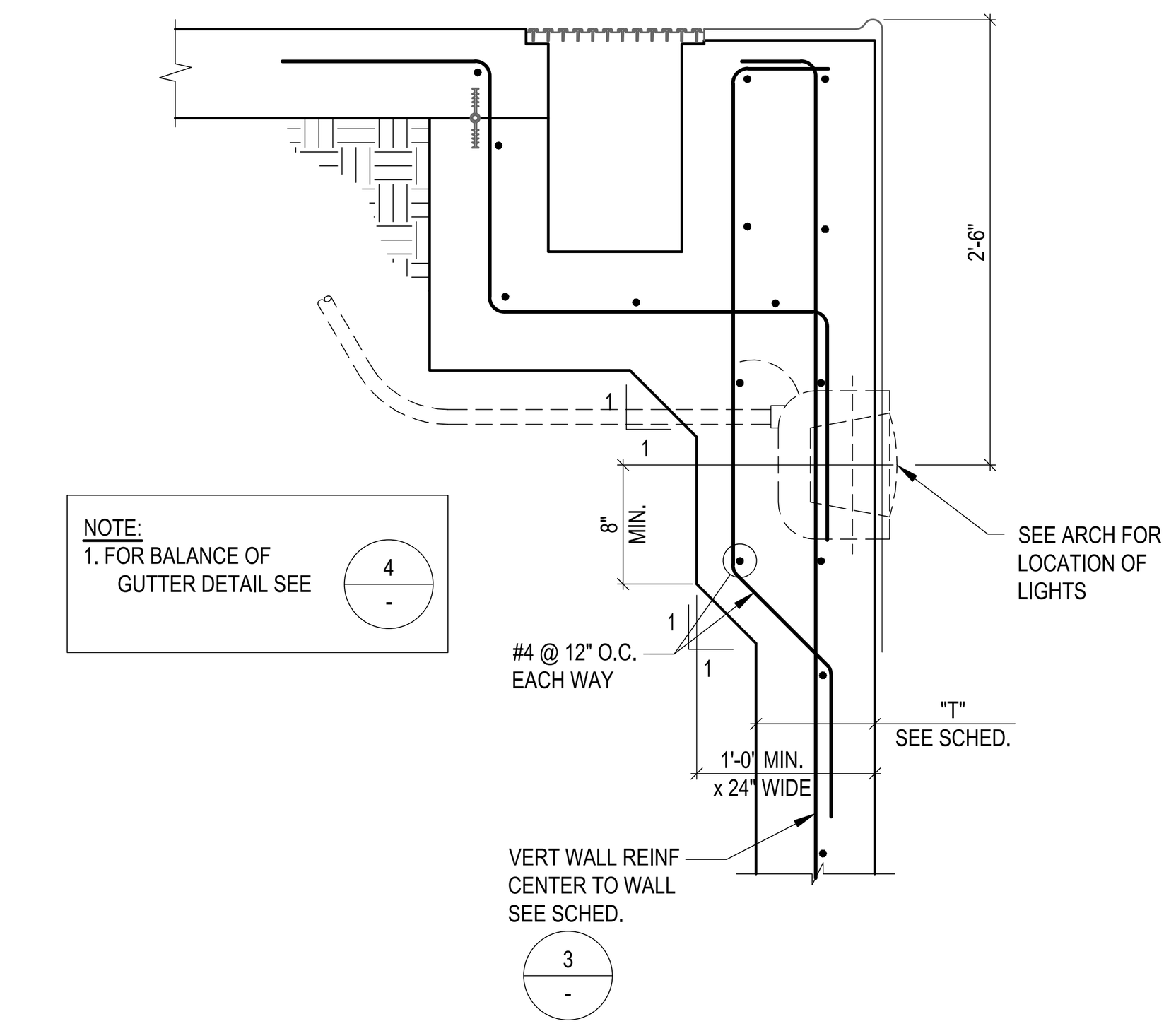
3 POOL WALL SCHEDULE

NO SCALE



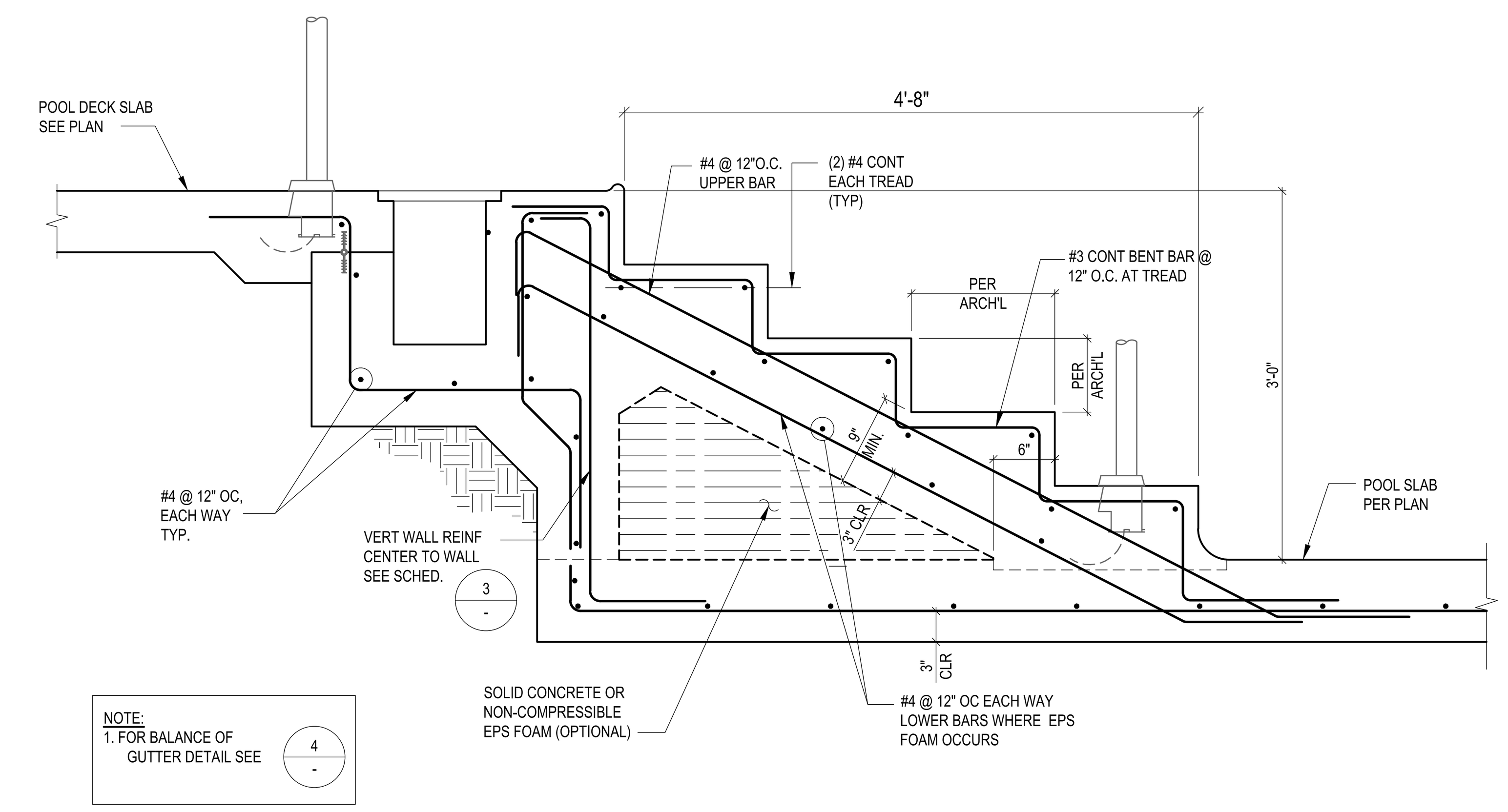
4 POOL GUTTER/WALL SECTION

1"=1'-0"



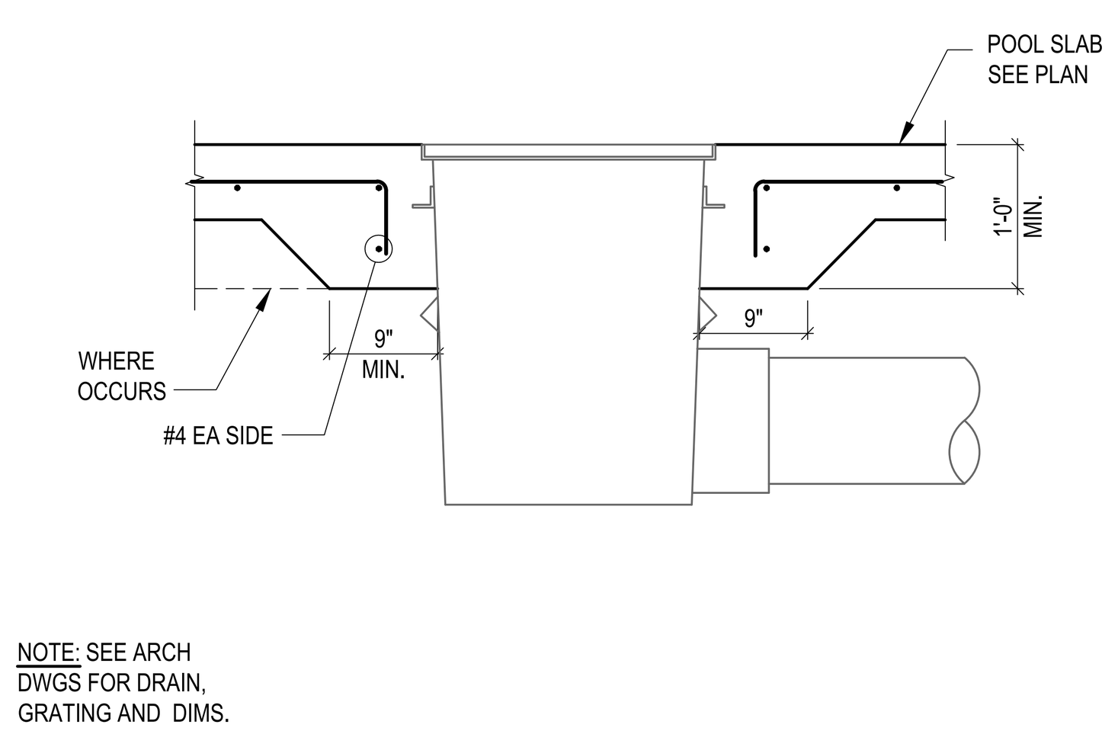
5 SECTION AT POOL LIGHT

1"=1'-0"



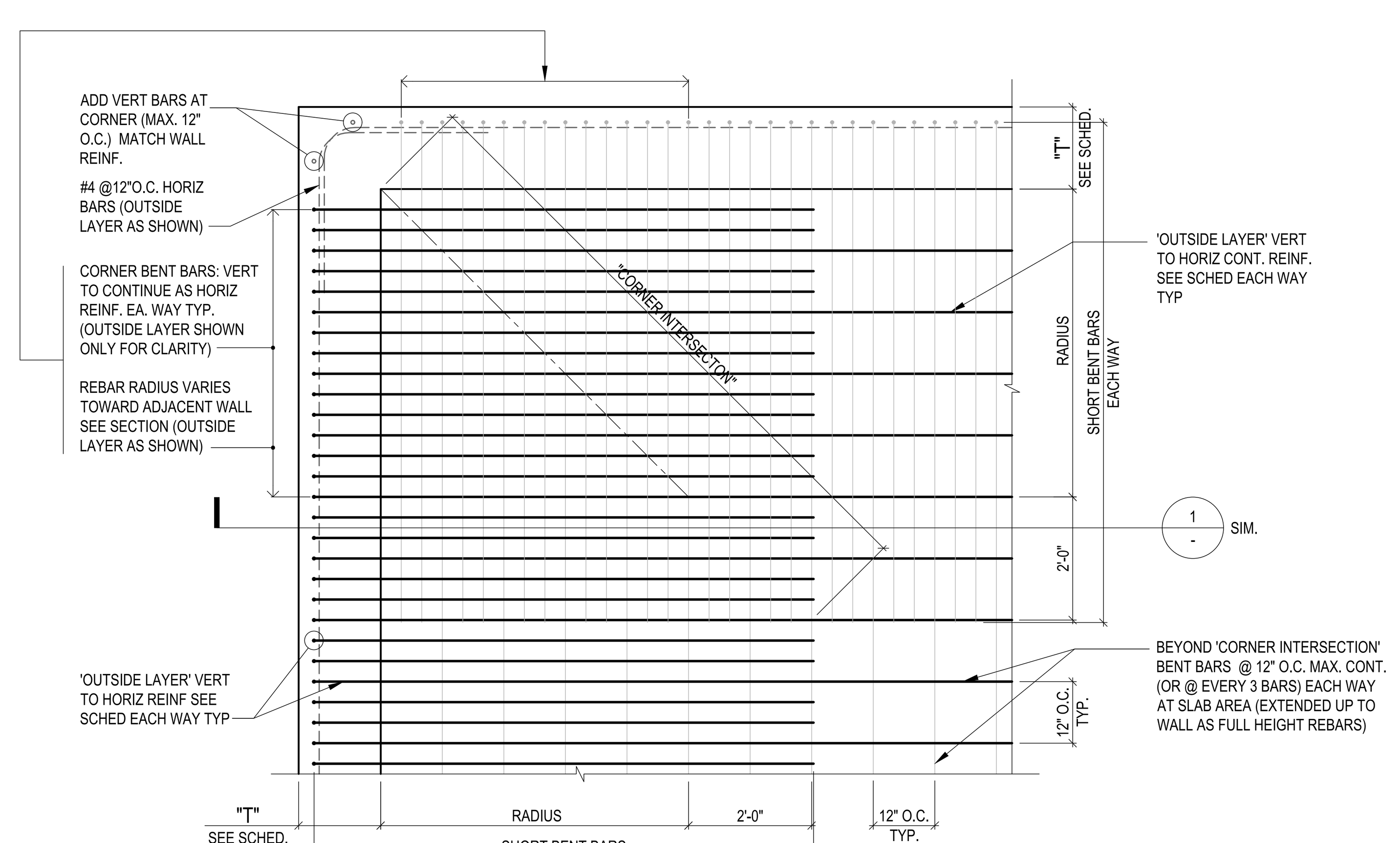
8 POOL STAIRS SECTION

1"=1'-0"



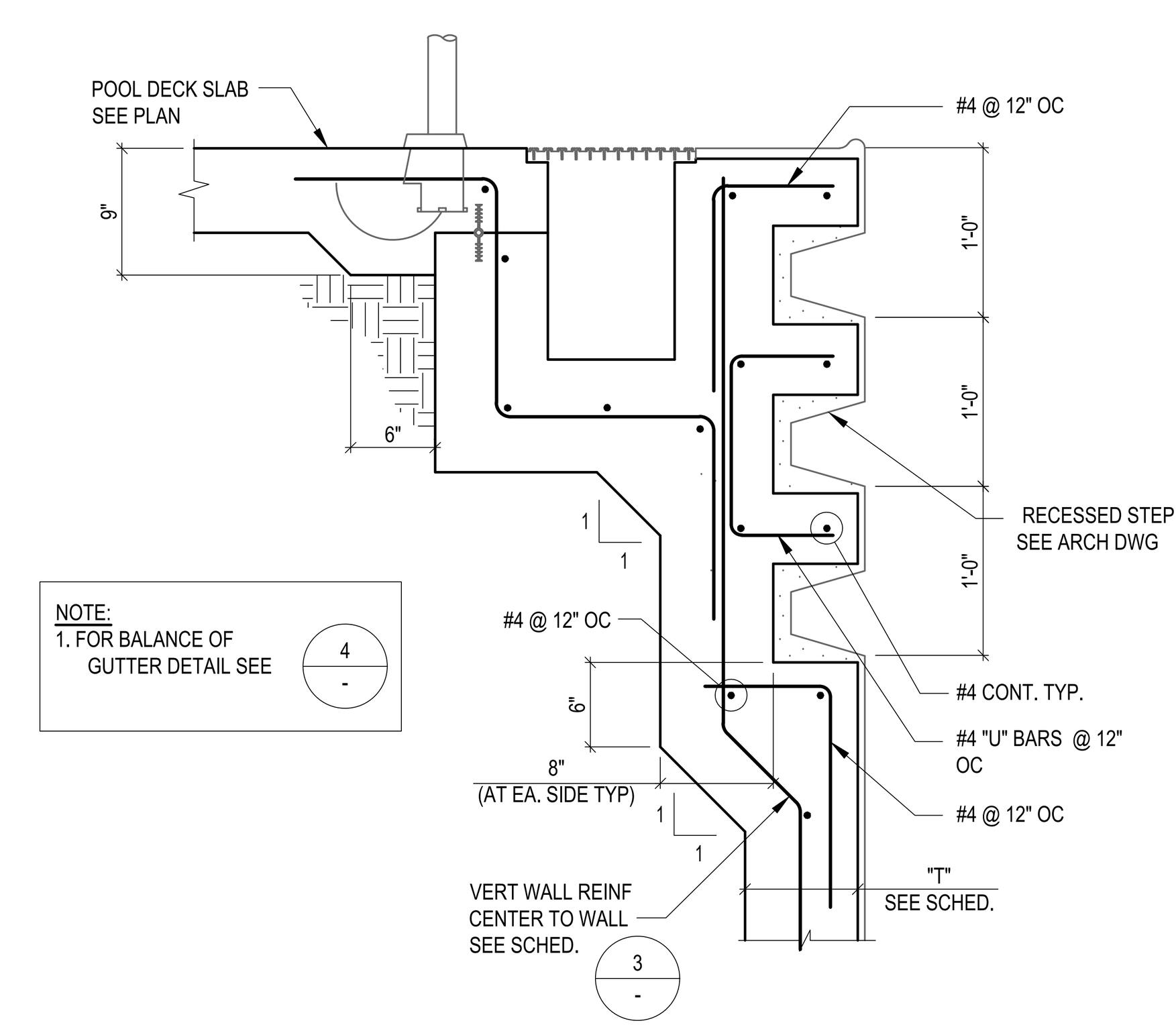
10 MAIN DRAIN DETAIL

3/4"=1'-0"



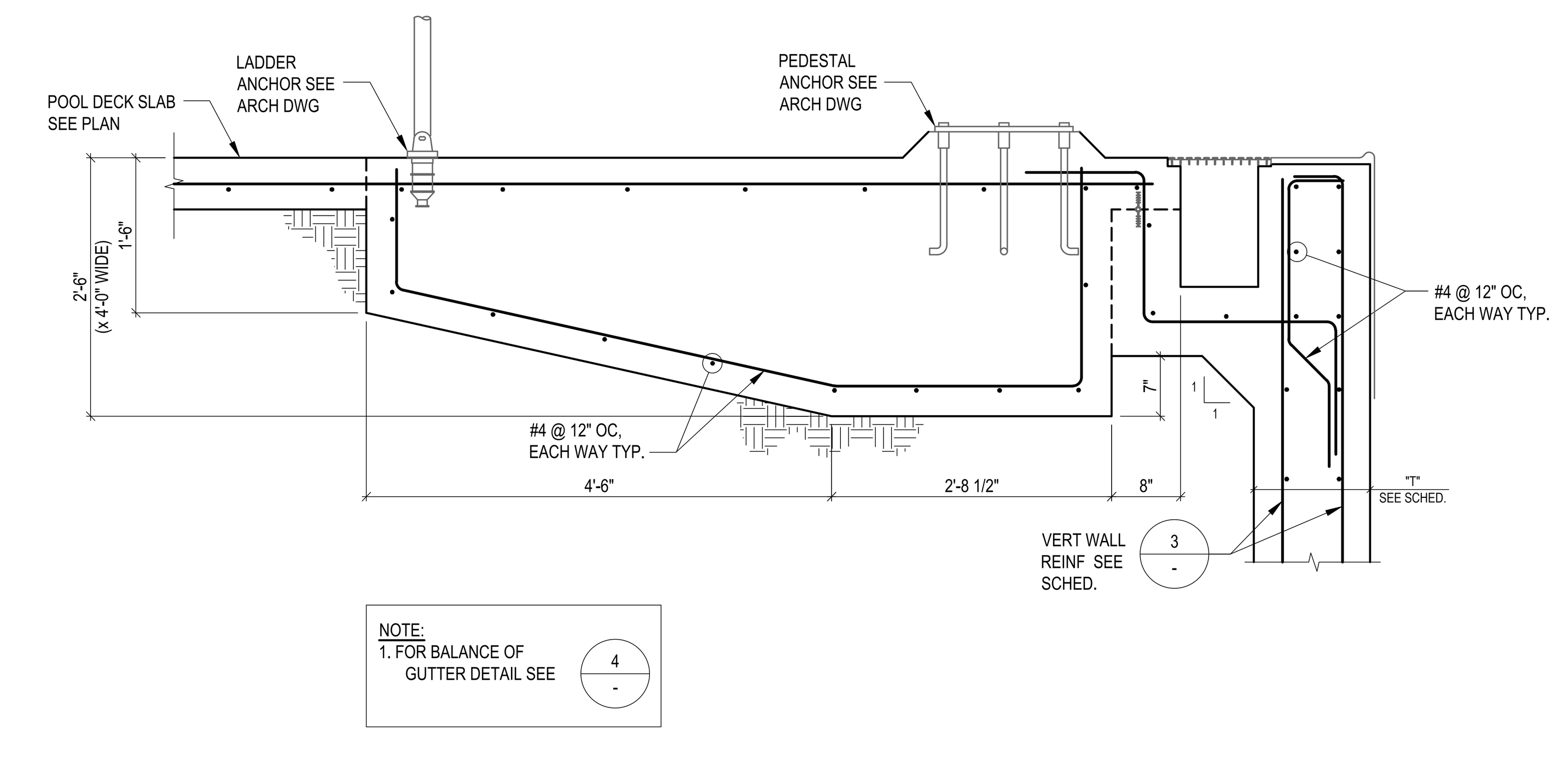
11 PLAN AT CORNER DEEP END OF POOL OUTSIDE LAYER BENT EA WAY AS SHOWN

1/2"=1'-0"



18 SECTION @ EMBED STEPS

1"=1'-0"



NOTE:
SEE ARCH'L FOR DIVING STAND DETAILS

19 DIVING STAND PAD DETAIL

3/4"=1'-0"

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REGISTERED PROFESSIONAL ENGINEER PAUL VAN BENSCHOTEN No. S-4715 Exp. 12-31-23 STRUCTURAL STATE OF CALIFORNIA

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING
POOL DETAILS
COMMUNITY AQUATICS & SENIOR CENTER
SP3.31

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DRAWN BY	JNP	09-30-22
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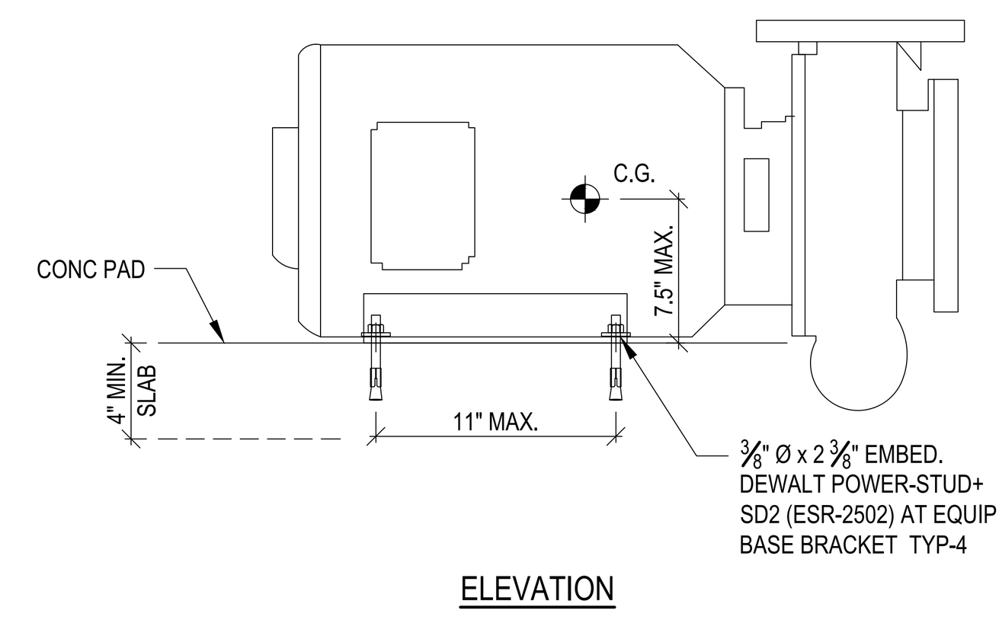
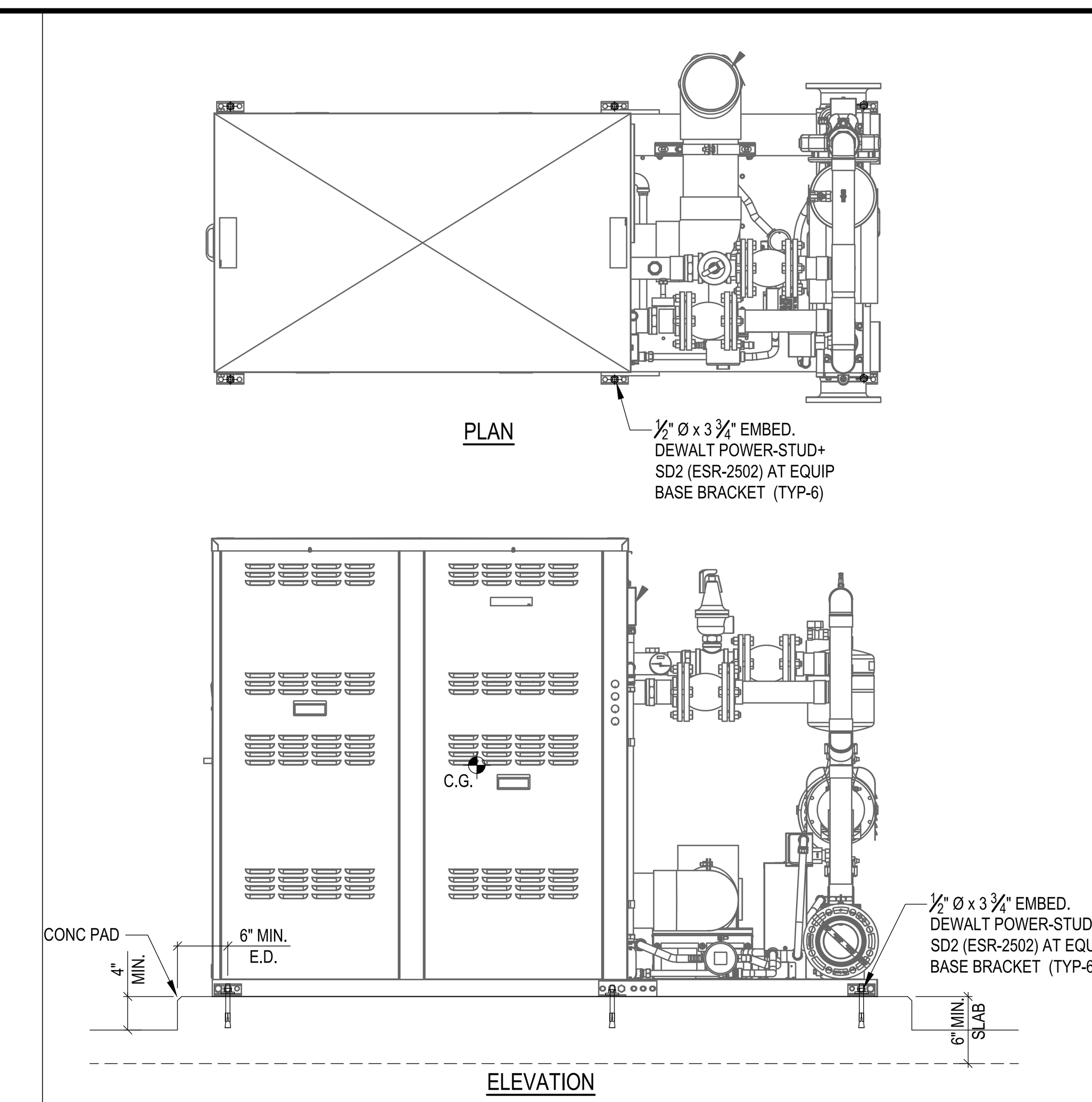
DATE DIRECTOR OF PUBLIC WORKS

SHT. 149 OF 157 DWG. NO. 5-2606

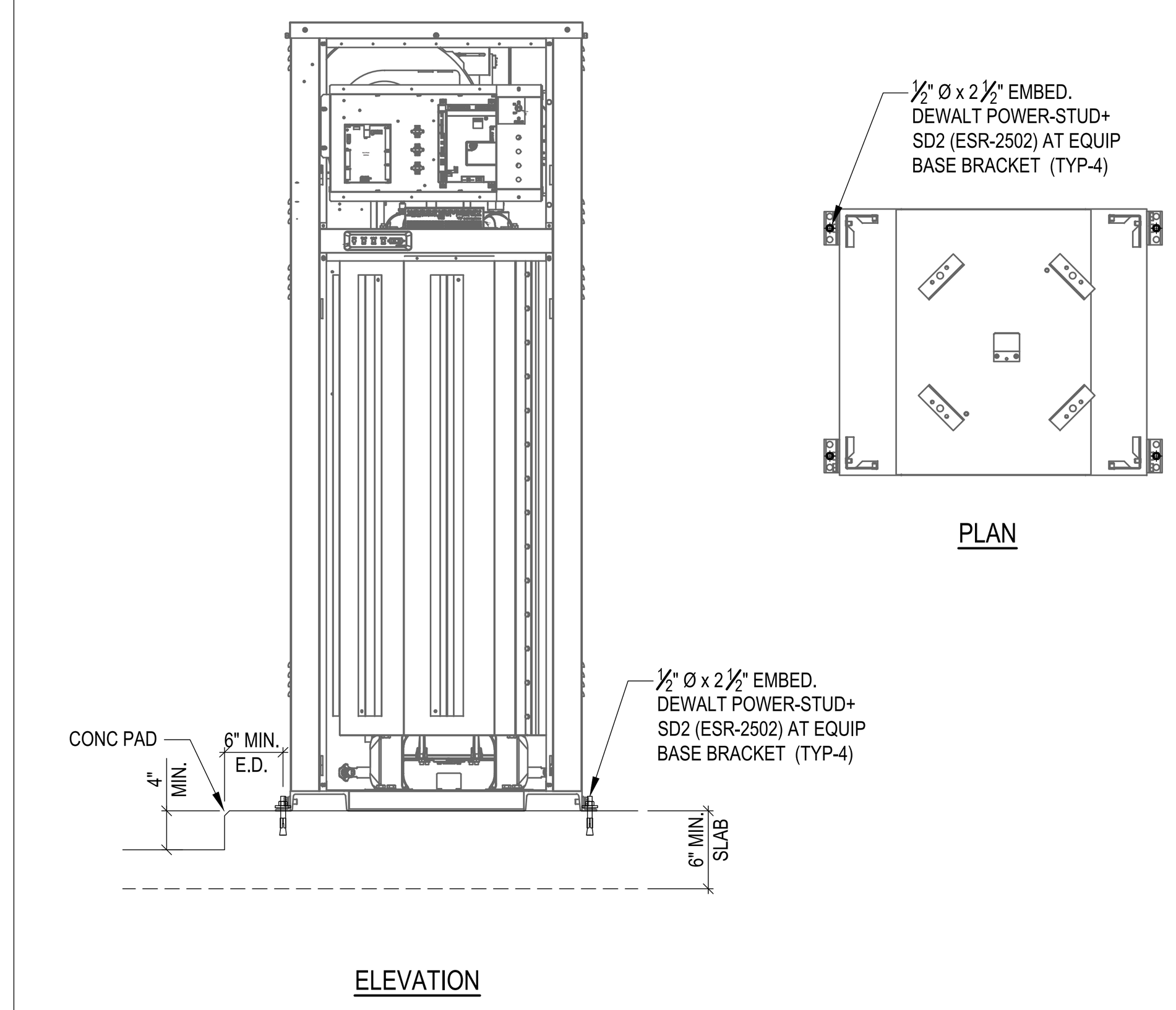
FILE PATH:
PLOT TIME:



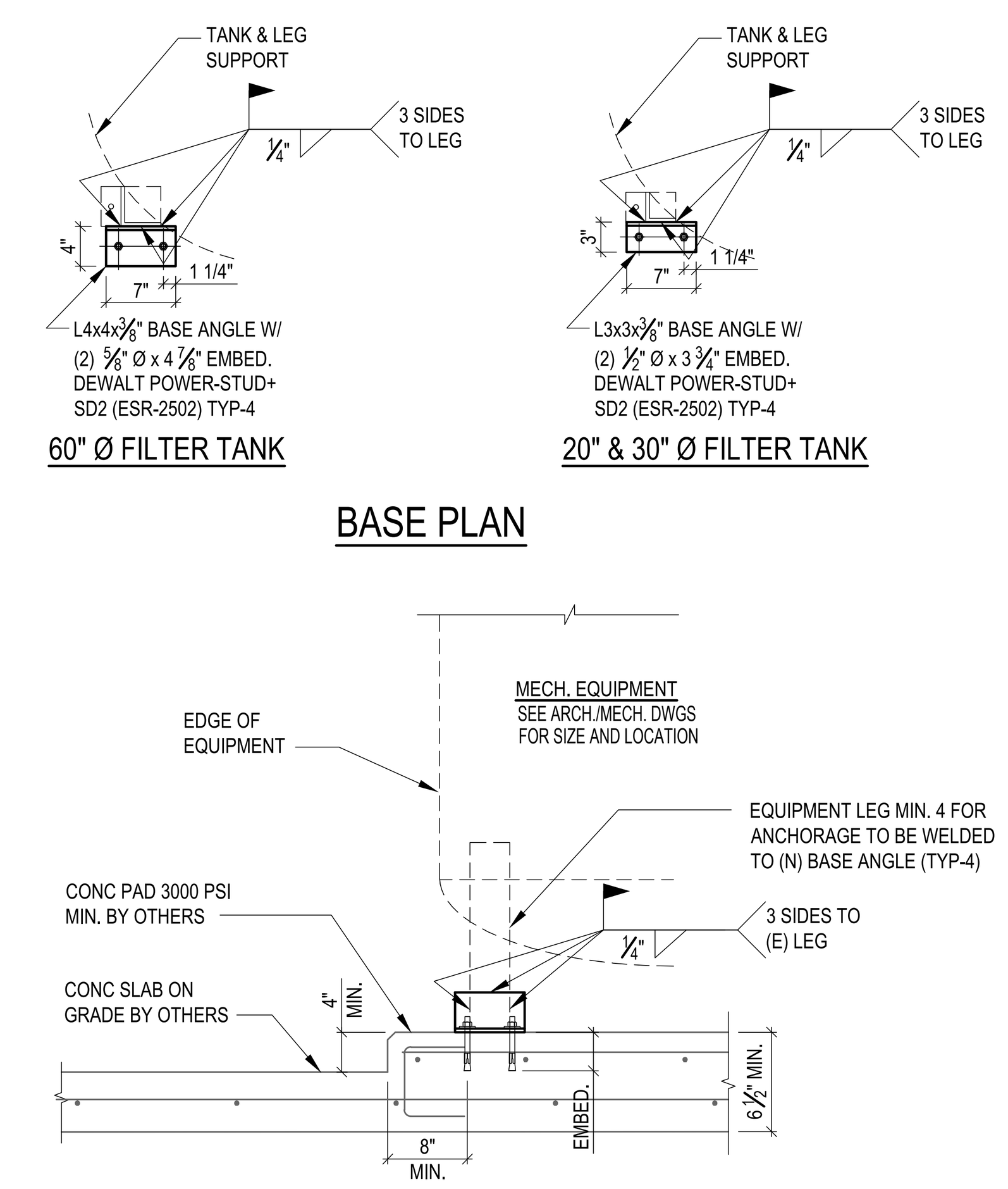
3 **PUMP ANCHORAGE (TYP)**
1 1/2"=1'-0"



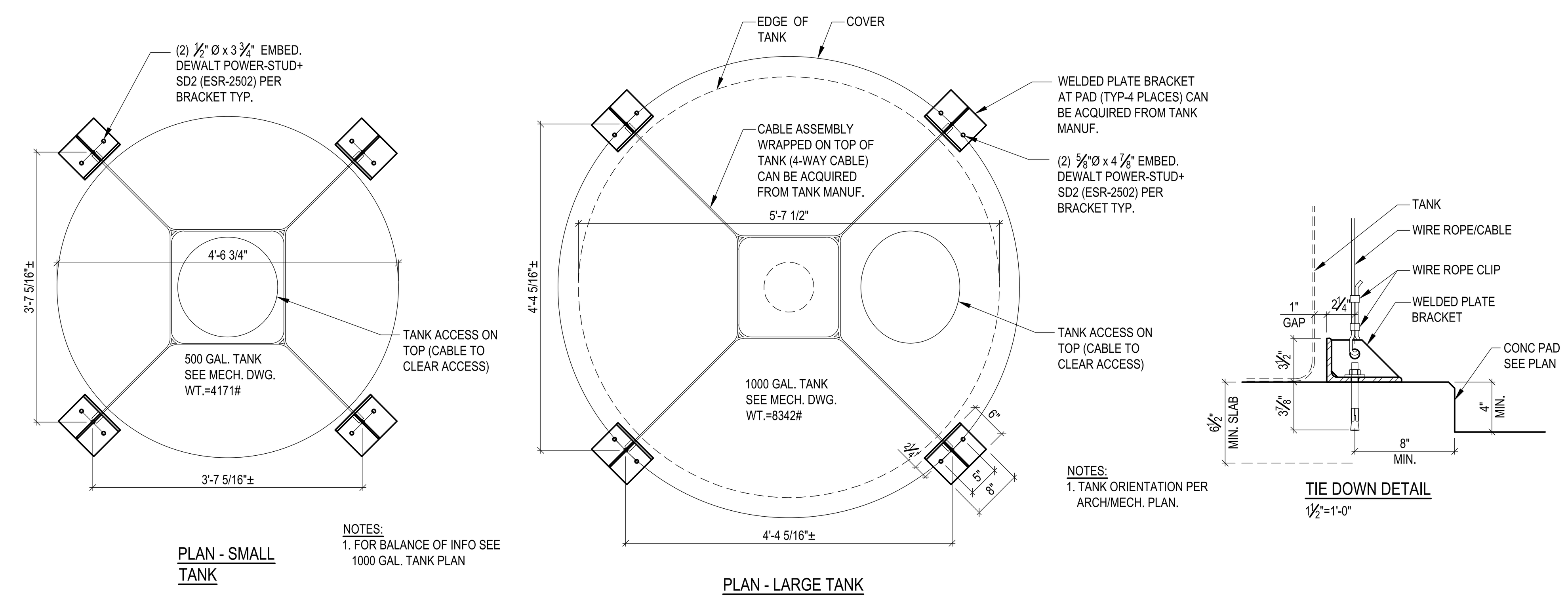
4 **POOL HEATER ANCHORAGE**
3/4"=1'-0"



5 **UPRIGHT HEATER ANCHORAGE**
3/4"=1'-0"



8 **FILTER TANK ANCHORAGE**
3/4"=1'-0"



9 **CHEM STORAGE TANK ANCHORAGE**
3/4"=1'-0"

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REVISIONS			
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B.M.: THE CITY OF GARDENA BENCHMARK NO. 5D-15
ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

EQUIP. ANCHORAGE DETAILS
COMMUNITY AQUATICS & SENIOR CENTER
SP3.32

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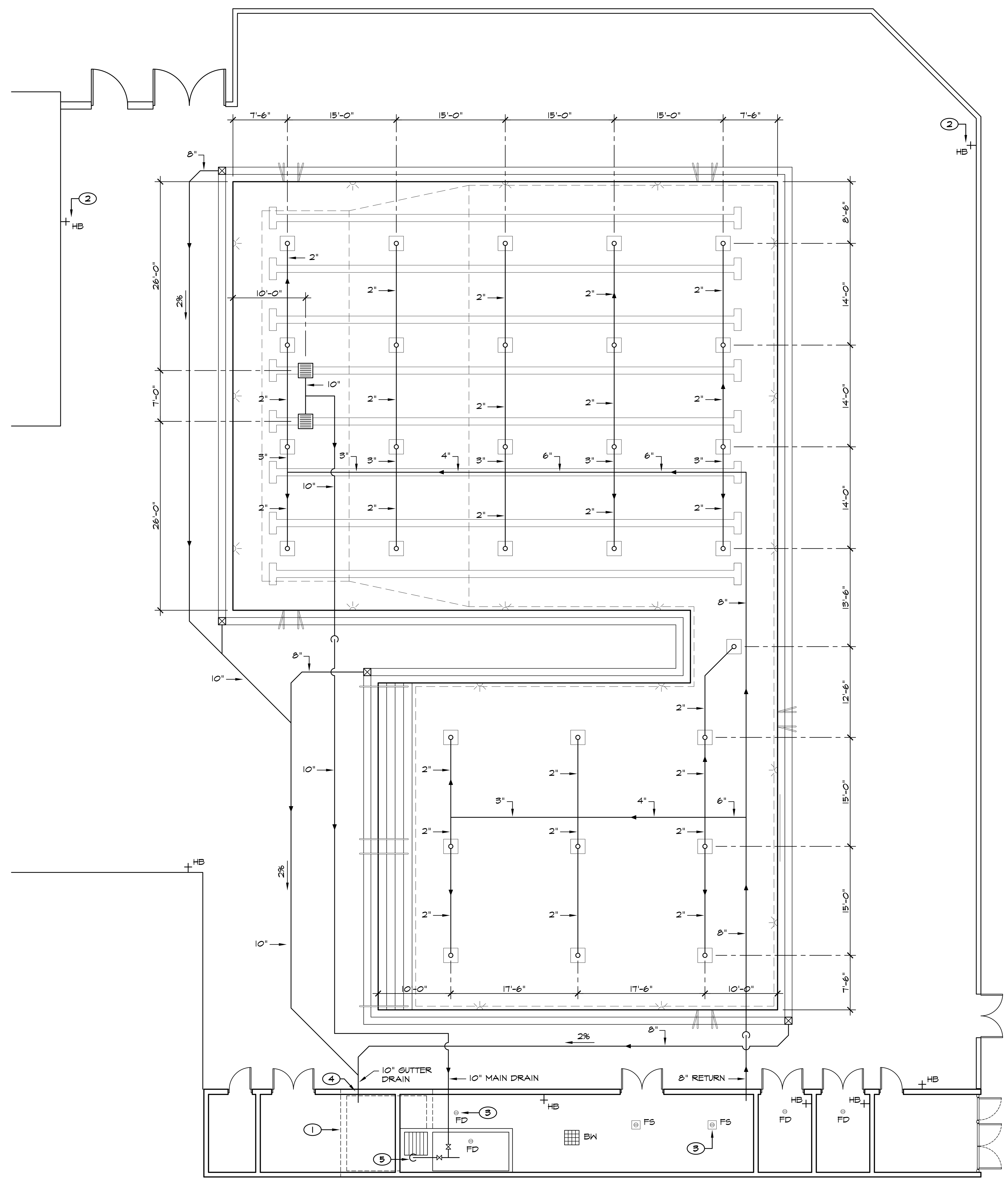
SHT. 150 OF 157 DWG. NO. 5-2606

FILE PATH:
PLOT TIME:



POOL PLUMBING PLAN

SCALE: 1/8" = 1'-0"

NORTH

KEYED NOTES

1. SURGE CHAMBER
2. POTABLE WATER HOSE BIBB W/ VACUUM BREAKER AROUND DECK PERIMETER & INSIDE EQUIPMENT ROOM SPACED SO ALL PARTS OF THE DECK CAN BE REACHED W/ A 75' HOSE, SEE BLDG PLUMBING DWGS & LANDSCAPE DWGS
3. SLOPE CONC EQUIPMENT ROOM FLOOR SLAB 2% TO DRAINS, SEE BLDG PLUMBING DWGS
4. SURGE CHAMBER PIPE PENETRATION (TYP), SEE 4/SP4.3
5. ANCHOR 10" SURGE CHAMBER SUCTION PIPE @ FLOOR, SEE 5/SP4.3

GENERAL NOTES

1. ALL POOL PIPING SHALL BE SCH 80 PVC W/ SOLVENT WELDED JOINTS UNO.
2. LOCATE BURIED PIPING IN TRENCHES W/ SAND BEDDING PER DETAIL 6/SP4.3
3. HYDROSTATICALLY PRESSURE TEST ALL BURIED PIPING @ 80 PSI PRIOR TO BACKFILLING & MAINTAIN 40 PSI PRESSURE THROUGHOUT CONSTRUCTION.
4. USE 45° ELBOWS & WYES IN GUTTER DRAIN LINES AS INDICATED & SLOPE PIPING 2% MIN TO SURGE CHAMBER.

SYMBOLS

SYMBOL	DESCRIPTION	REFERENCE
o	FLOOR INLET (TYP 30)	1/SP4.3
▦	MAIN DRAIN GRATE (TYP 2)	2/SP4.3
⊠	GUTTER DRAIN (TYP 4)	3/SP4.3

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REGISTERED PROFESSIONAL ENGINEER
DOUG R. JONES
No. M25446
EXP. 9-30-24
MECHANICAL
STATE OF CALIFORNIA

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. 5D-15
ELEV. = 43.508'

CITY OF GARDENA

DEPARTMENT OF PUBLIC WORKS - ENGINEERING

POOL PLUMBING PLAN

COMMUNITY AQUATICS & SENIOR CENTER

SP4.1

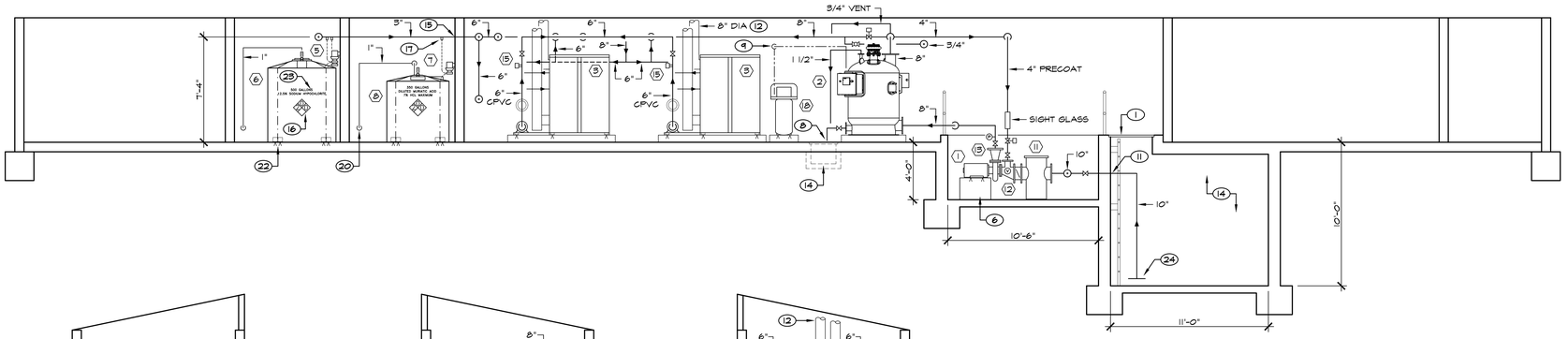
	INITIAL	DATE
DESIGNED BY	DJ	9-30-22
DRAWN BY	JMAE	9-30-22
CHECKED BY	NM	9-30-22

APPROVED BY:

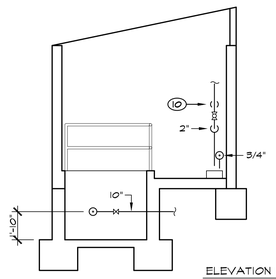
DATE ______ DIRECTOR OF PUBLIC WORKS

SHT. 151 OF 157 DWG. NO. 5-2606

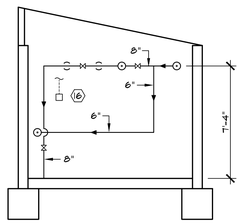
FILE PATH:
PLOT TIME:



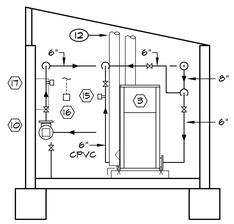
ELEVATION C



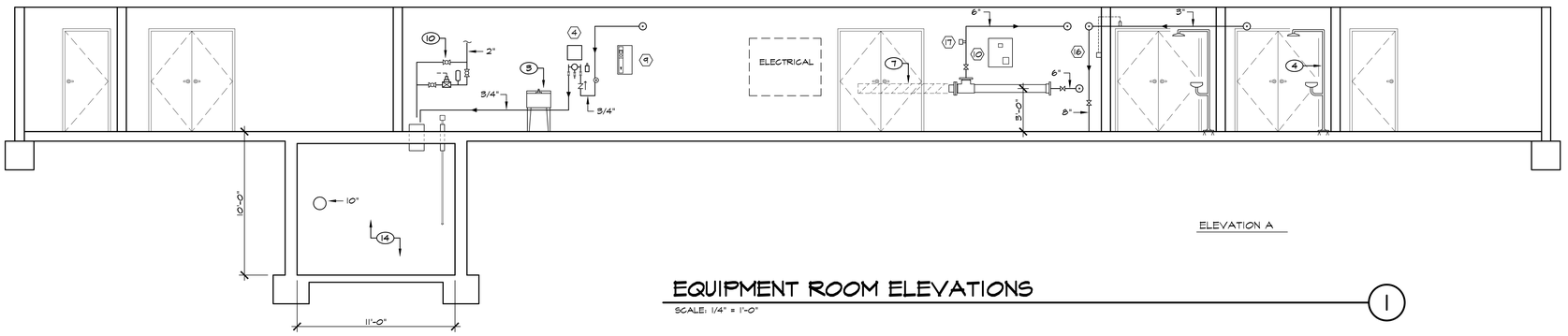
ELEVATION D



ELEVATION B @ WALL



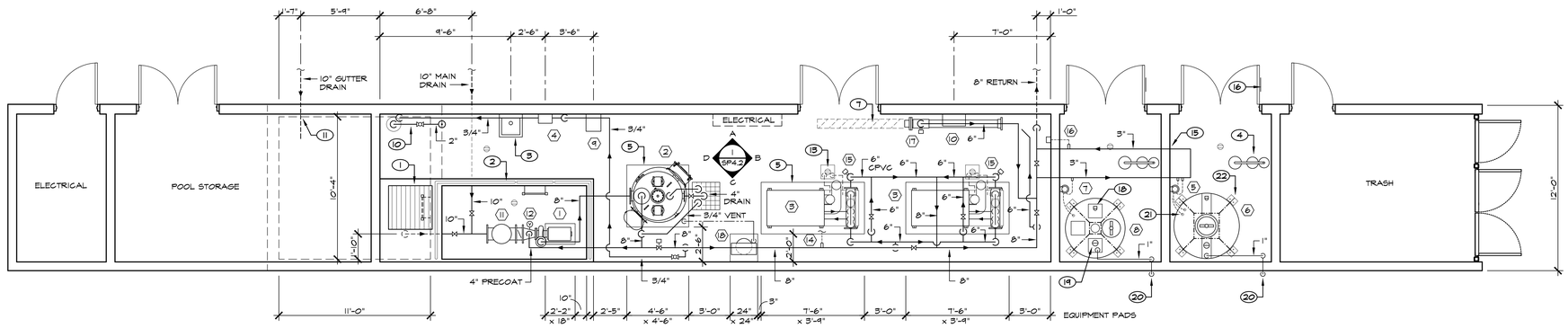
ELEVATION B



ELEVATION A

EQUIPMENT ROOM ELEVATIONS

SCALE: 1/4" = 1'-0"



EQUIPMENT ROOM PLAN

SCALE: 1/4" = 1'-0"

NORTH

KEYED NOTES

1. SURGE CHAMBER ACCESS HATCH & LADDER, SEE 10/SP4.3
2. PUMP PIT GUARDRAIL & LADDER, SEE ARCHITECTURAL DWGS
3. UTILITY SINK, SEE BLDG PLUMBING DWGS
4. EYEWASH & SHOWER, SEE BLDG PLUMBING DWGS
5. 6" HIGH CONC EQUIPMENT PAD (TYP)
6. 18" HIGH CONC PUMP PAD
7. MAINTAIN CLEARANCE FOR UV LAMP REMOVAL
8. 1" MIN AIR GAP ON 4" FILTER DRAIN PIPE @ 21" x 21" x 18" DEEP BACKWASH PIT W/ GRATING, SEE 13/SP4.3
9. 1/2" TYPE L COPPER COMPRESSED AIR PIPING W/ BALL VALVE @ FILTER
10. POOL FILL SYSTEM MANIFOLD, SEE 7/SP4.3
11. SURGE CHAMBER PIPE PENETRATION, SEE 4/SP4.3
12. HEATER EXHAUST & COMBUSTION AIR VENTS, SEE 9/SP4.3
13. RUN 3/4" COPPER PRESSURE RELIEF VALVE DISCHARGE & 3/4" PVC CONDENSATE DRAIN LINE TO FLOOR SINK
14. INSTALL XYPEX WATERPROOF COATING ON ALL INTERIOR SURFACES OF SURGE CHAMBER & BACKWASH PIT
15. 1 HOUR PIPE SLEEVE @ CHEMICAL ROOM WALL PENETRATIONS, SEE 12/SP4.3
16. CHEMICAL HAZARD SIGN ON DOOR & TANKS, SEE 1/SP4.4
17. CHEMICAL PUMP INJECTION, SEE 2/SP4.4
18. TANK FILL PORT W/ CAM ACTION COUPLER, SEE 3/SP4.4
19. TANK LEVEL GAUGE, SEE 4/SP4.4
20. 1" TANK VENT LINE TO OUTSIDE OF BLDG, SEE 5/SP4.4
21. 3/8" SUCTION TUBING THROUGH BULKHEAD FITTING, SEE 6/SP4.4
22. CHEMICAL TANK ANCHOR BRACKETS & CABLE
23. PLASTIC LABEL W/ 1 1/2" HIGH LETTERS ON EA TANK
24. ANCHOR 10" SURGE CHAMBER SUCTION PIPE @ FLOOR, SEE 5/SP4.3

GENERAL NOTES

1. ALL POOL PIPING SHALL BE SCH 80 PVC W/ SOLVENT WELDED JOINTS UNO.
2. ALL PVC FITTINGS IN EQUIPMENT ROOM SHALL BE MOLDED TO MEET DIMENSIONAL REQUIREMENTS.
3. ALL PIPING SHALL BE RESTRAINED PER SMACNA SEISMIC GUIDELINES W/ LATERAL SEISMIC BRACING. PROVIDE PIPE HANGERS OR SUPPORTS ADJACENT TO MECHANICAL EQUIPMENT & @ 8' MAX INTERVALS, SEE 8/SP4.3
4. PROVIDE 6'-8" MIN CLEARANCE UNDER OVERHEAD PIPING.
5. BOND PUMP, HEATERS & UV SYSTEM TO POOL SHELL REINFORCING GRID, SEE 15/SP2.1
6. PROVIDE 15 DIA MIN OF STRAIGHT PIPE BEFORE FLOW SENSORS & 5 DIA AFTER.
7. PLUMB EA POOL HEATER W/ BYPASS LOOP & ISOLATION VALVES AS SHOWN.
8. INSTALL SHUT-OFF VALVE, SERVICE UNION & DRIP LEG ON GAS LINE @ HEATERS.
9. INSTALL EQUIPMENT LABELS, PIPE FLOW ARROWS, PIPE LABELS, VALVE TAGS & VALVE CHART.
10. RESTRICT MAIN DRAIN BUTTERFLY VALVE TO PROVIDE 80% FLOW OVER GUTTER.
11. RESTRICT POOL RETURN VALVE TO APPLY BACK PRESSURE ON MECHANICAL SYSTEMS.
12. CIRCULATION PUMP VFD SHALL MAINTAIN CONSTANT FLOW RATE BASED ON 4-20 MILLIAMP SIGNAL FROM FLOW SENSOR W/ INTERLOCK TO FILTER CONTROL PANEL FOR BUMPING OPERATION.
13. THE REQUIRED TURNOVER RATE OF 850 GPM SHALL BE POSTED ON VFD CONTROL PANEL.
14. CHEMICAL CONTROLLER SHALL CONTROL CHLORINE & ACID PUMPS W/ SAFETY FLOW SWITCH TO DISABLE FEED PUMPS UPON LOSS OF FLOW. UNIT SHALL ALSO CONTROL POOL WATER LEVEL.
15. INTERLOCK HEATERS W/ CIRCULATION PUMP TO ONLY FIRE WHEN PUMP IS RUNNING.
16. INTERLOCK UV SYSTEM TO OPERATE CONTINUOUSLY W/ CIRCULATION PUMP.
17. TIME CLOCK IN FILTER CONTROL PANEL SHALL OPERATE CIRCULATION PUMP W/ FIREMAN SWITCH FOR HEATER COOL DOWN.
18. RUN 1 1/2" FILTER TANK VENT & 3/4" SYSTEM VENT LINES TO BACKWASH PIT PER MFR'S INSTRUCTIONS.
19. INSTALL POLYETHYLENE TUBING FROM FILTER CONTROLLER TO PNEUMATIC VALVES PER MFR'S INSTRUCTIONS.
20. SEE STRUCTURAL DWGS FOR EQUIPMENT ANCHORING DETAILS.

EQUIPMENT SCHEDULE

1. CIRCULATION PUMP - 20 HP, 480V, 3Ø, 1,760 RPM W/ 850 GPM @ 65', 5"x4", PACO #40457 LC
2. FILTER SYSTEM - 700 SQ FT, PERLITE MEDIA, FIBERGLASS TANK, 120V CONTROLLER, AQUIFY #PMF-42-700-FRP
3. HEATER - 1,500,000 BTU W/ 120V, 1Ø PUMPS, 360 GPM, RAYPAK XTHERM INDIRECT #1505A (TYP 2)
4. CHEMICAL CONTROLLER & SENSOR CELL - 120V, 1Ø, CHEMTROL #PC3000
5. CHLORINE PUMP - 120 GPD, 120V, 1Ø, STENNER #170DM4
6. CHLORINE STORAGE TANK - 500 GALLON DOUBLE WALL W/ 16" NON-VENTED MANWAY, CHEM-TAINER #TC597IDC
7. ACID PUMP - 85 GPD, 120V, 1Ø, STENNER #85M5
8. ACID STORAGE TANK - 350 GALLON DOUBLE WALL W/ 16" NON-VENTED MANWAY, CHEM-TAINER #TC5256DC
9. VARIABLE FREQUENCY DRIVE - 480V, 20 HP W/ FUSED DISCONNECT, PENTAIR ACU DRIVE XS
10. UV SYSTEM - 566 GPM CAPACITY, 1.28 KW, 240V, 1Ø, PENTAIR #CLP64AB-XN
11. STRAINER - 10"x10" FIBERGLASS W/ SST BASKET, AQUIFY #STR-1010-FRP
12. PRECOAT TEE - 10"x5"x4" ECCENTRIC FIBERGLASS TEE W/ 10" CHECK VALVE, AQUIFY #TEE-100504-FRP
13. CONCENTRIC REDUCER - 8"x4" FIBERGLASS, AQUIFY #RDC-0804-FRP
14. FLOW SENSOR - 8" MAGNETIC SENSOR, 24V W/ DISPLAY & 4 TO 20 mA OUTPUT, SIGNET #2551
15. HEATER FLOW METER - 6" DIGITAL PIPE MOUNT METER & SENSOR FOR 360 GPM, SIGNET #8150 & 515 (TYP 2)
16. CHEMICAL BYPASS FLOW METER - 3" DIGITAL WALL MOUNT METER & SENSOR FOR 100 GPM, SIGNET #8150 & 515
17. UV FLOW METER - 6" DIGITAL PIPE MOUNT METER & SENSOR FOR 550 GPM, SIGNET #8150 & 515
18. AIR COMPRESSOR - 2 HP, 120V, 1Ø, 20 GAL TANK, INGERSOLL RAND #P1.5IU-A9

FIRE CODE DATA

CHEMICAL STORAGE COMPLIANCE: MAXIMUM ALLOWABLE AMOUNT PER CFC TABLE 5003.1.1(2)

	ACID ROOM	CHLORINE ROOM
a. CHEMICAL	7% HYDROCHLORIC ACID HCl	12.5% SODIUM HYPOCHLORITE NaOCl
b. FORM	LIQUID	LIQUID
c. CAS NUMBER	7647-01-0	7681-52-9
d. HEALTH HAZARD	IRRITANT	IRRITANT
e. PHYSICAL HAZARD	NONE	NONE
f. ALLOWABLE AMOUNT IN USE & STORAGE	NO LIMIT CLOSED SYSTEM	NO LIMIT CLOSED SYSTEM
g. PROPOSED AMOUNT IN USE & STORAGE	350 GALLONS	500 GALLONS

SYMBOLS

- M – BUTTERFLY VALVE
- N – CHECK VALVE
- BALL VALVE
- BUTTERFLY VALVE W/ ACTUATOR
- PRESSURE GAUGE
- VACUUM GAUGE
- Y-STRAINER
- RISER DOWN
- RISER UP
- TEE DOWN
- DIRECTION OF FLOW

PREPARED BY:

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EXP. 9-30-24
MECHANICAL
STATE OF CALIFORNIA

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. SD-16
ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

EQUIPMENT ROOM PLAN & ELEVATIONS

COMMUNITY AQUATICS & SENIOR CENTER

SP4.2

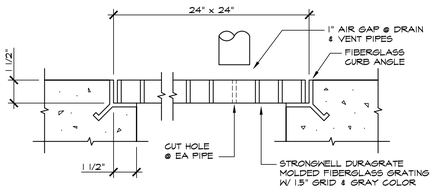
	INITIAL	DATE
DESIGNED BY	DJ	9-30-22
DRAWN BY	JMAE	9-30-22
CHECKED BY	NM	9-30-22

APPROVED BY:

DATE DIRECTOR OF PUBLIC WORKS

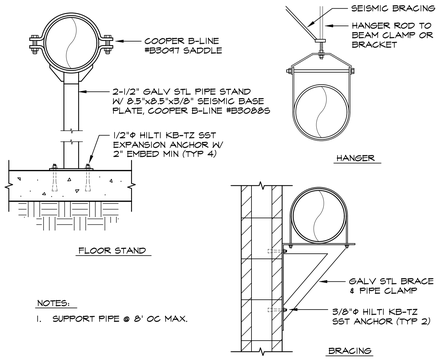
SHT. 152 OF 157 DWG. NO. 5-2606

RECEIVED
FILED



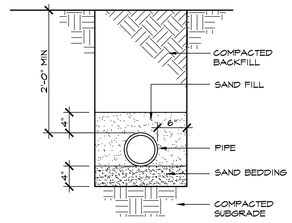
BACKWASH PIT GRATING 13

SCALE: 3" = 1'-0"



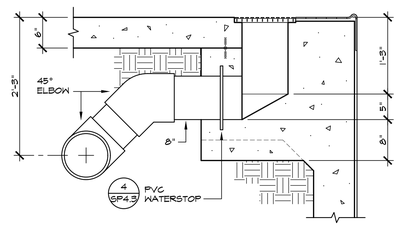
PIPE SUPPORT 8

SCALE: 1" = 1'-0"



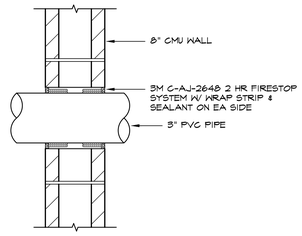
PIPE TRENCH 6

SCALE: 1" = 1'-0"



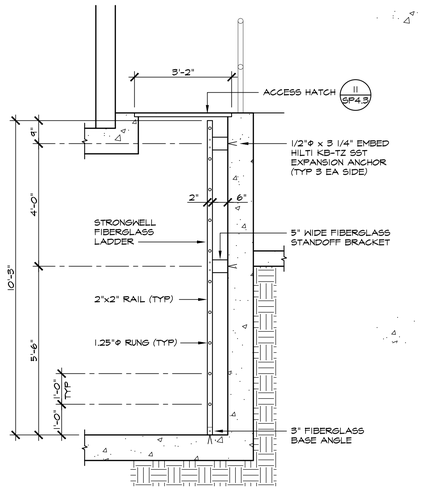
GUTTER DRAIN 3

SCALE: 1" = 1'-0"



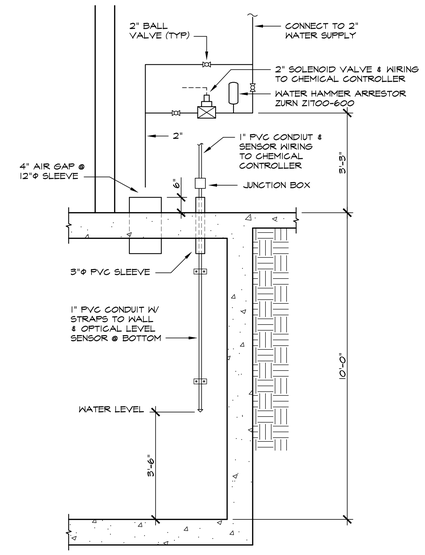
PIPE WALL PENETRATION 12

SCALE: 1 1/2" = 1'-0"



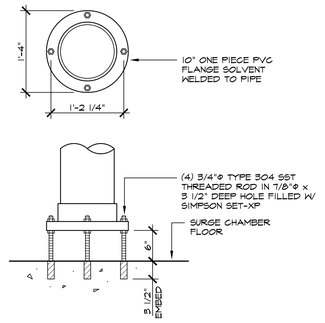
LADDER 10

SCALE: 1/2" = 1'-0"



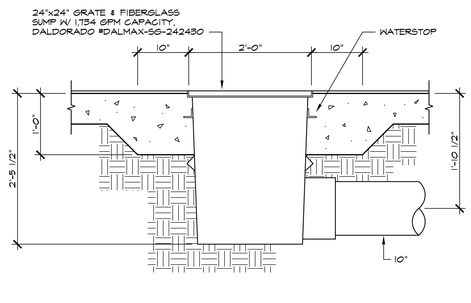
FILL SYSTEM 7

SCALE: 1/2" = 1'-0"



PIPE ANCHOR 5

SCALE: 1" = 1'-0"



MAIN DRAIN SUMP 2

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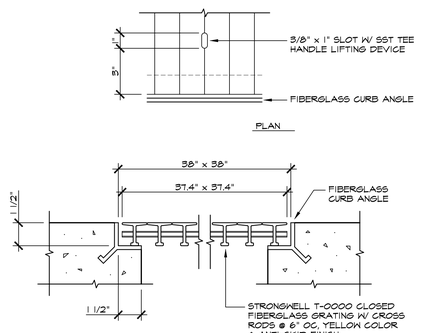

ACCESS HATCH 11

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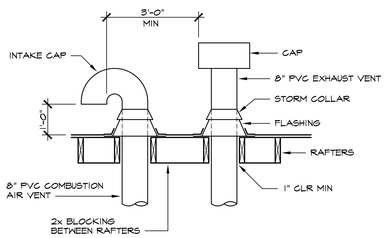
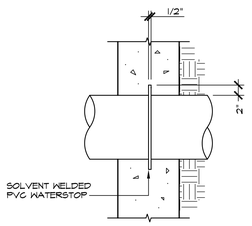


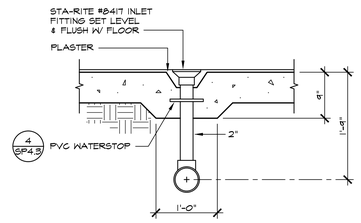
HEATER VENT 9

SCALE: NTS



PVC WATERSTOP 4

SCALE: 1" = 1'-0"



NOTE:

SET INLET CAPS TO 3/4 TURNS OPEN & ADJUST IN 1/4 TURN INCREMENTS FOR EVEN FLOW AFTER STARTING SYSTEM. LOCK IN PLACE W/ SST SCREW.

FLOOR INLET 1

SCALE: 1" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER
TODD R. JONES
No. M25446
EXP. 9-30-24
MECHANICAL
STATE OF CALIFORNIA

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. SD-15
ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

POOL PLUMBING DETAILS

COMMUNITY AQUATICS & SENIOR CENTER

SP4.3

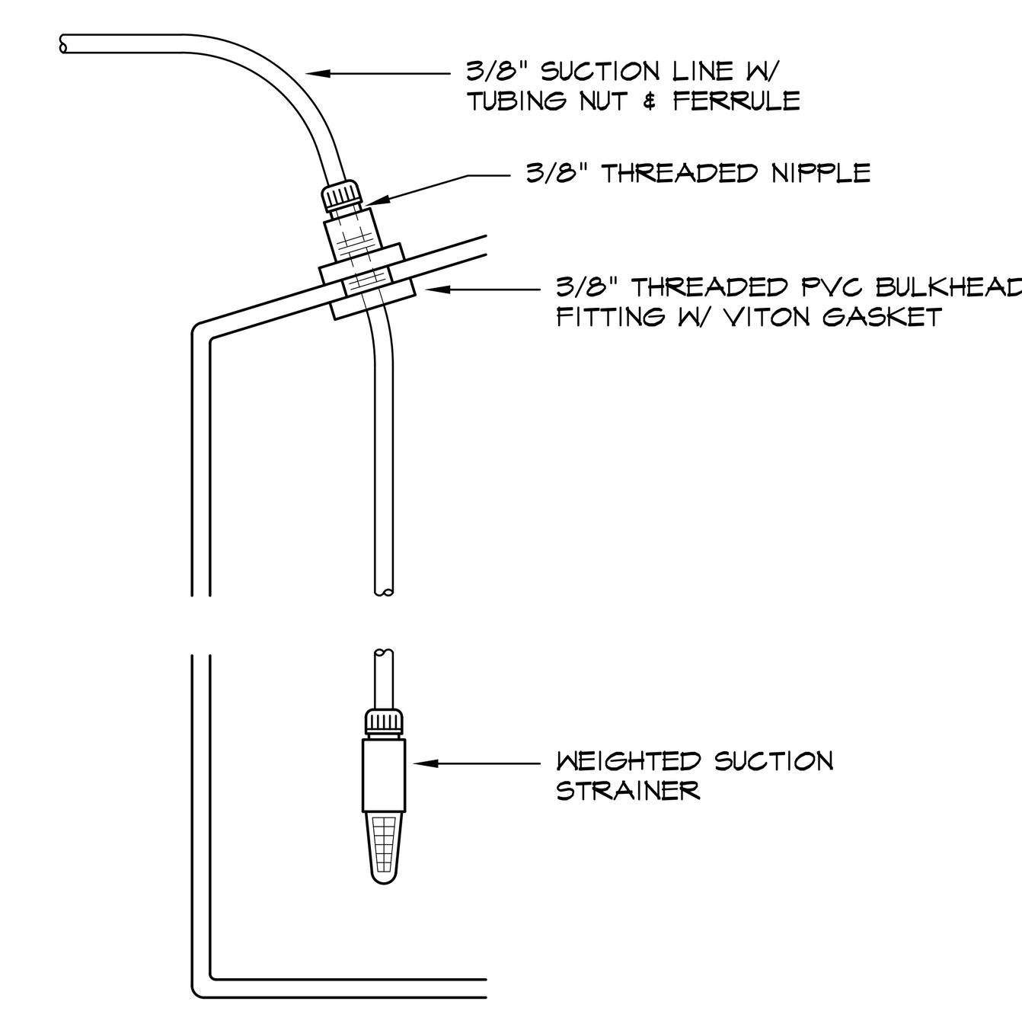
	INITIAL	DATE
DESIGNED BY	DJ	9-30-22
DRAWN BY	JMAE	9-30-22
CHECKED BY	NM	9-30-22

APPROVED BY:

DATE DIRECTOR OF PUBLIC WORKS

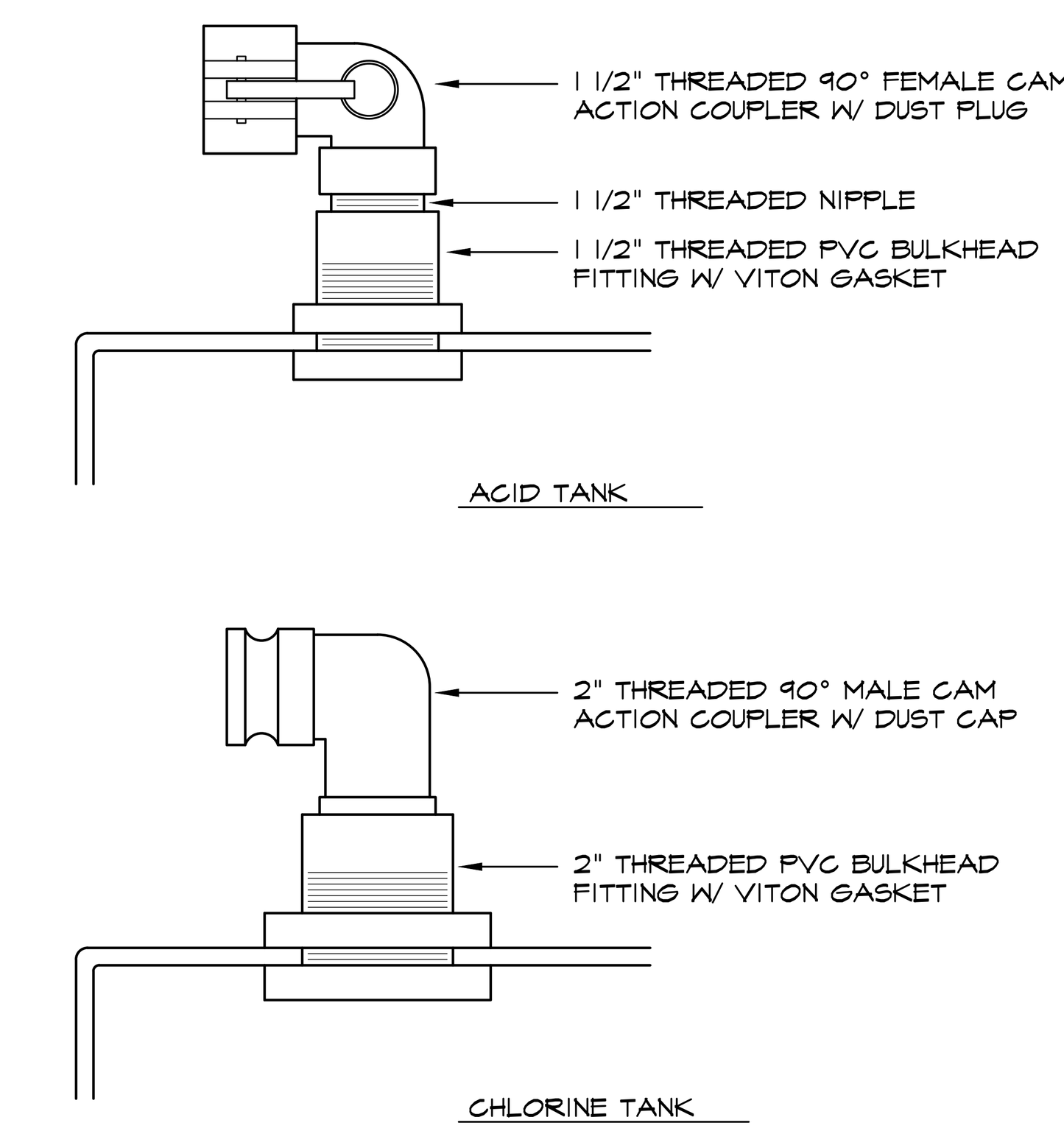
SHT. 153 OF 157 DWG. NO. S-2606

PLOT DATE: 9/27/2022



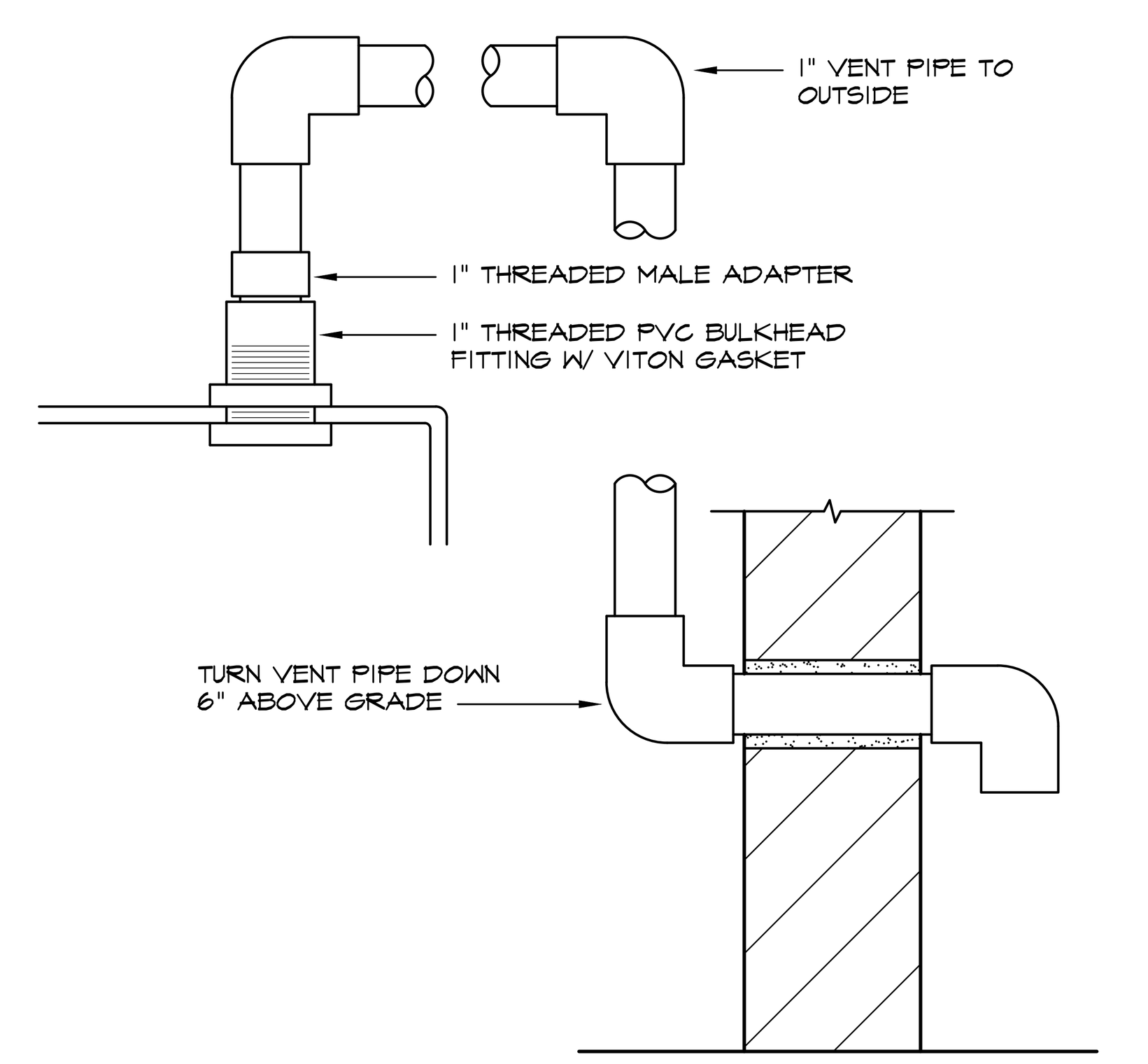
SUCTION LINE (6)

SCALE: 3" = 1'-0"



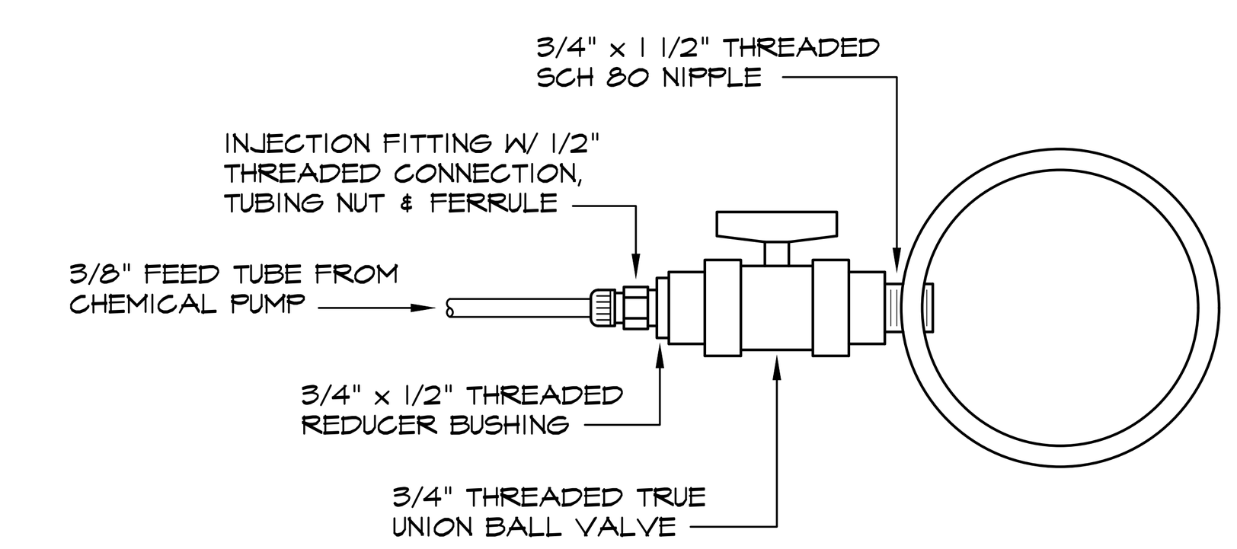
TANK FILL PORT (3)

SCALE: 3" = 1'-0"



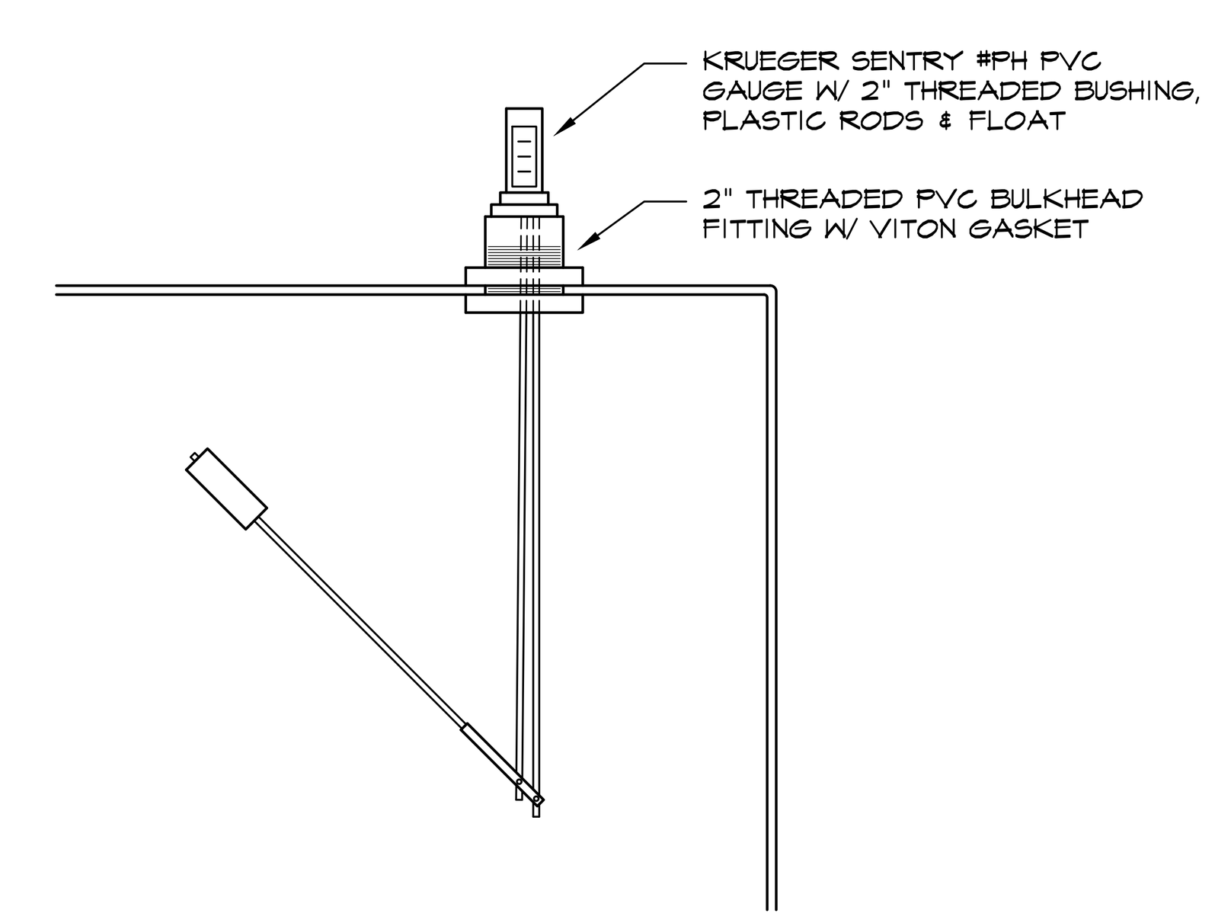
TANK VENT (5)

SCALE: 3" = 1'-0"



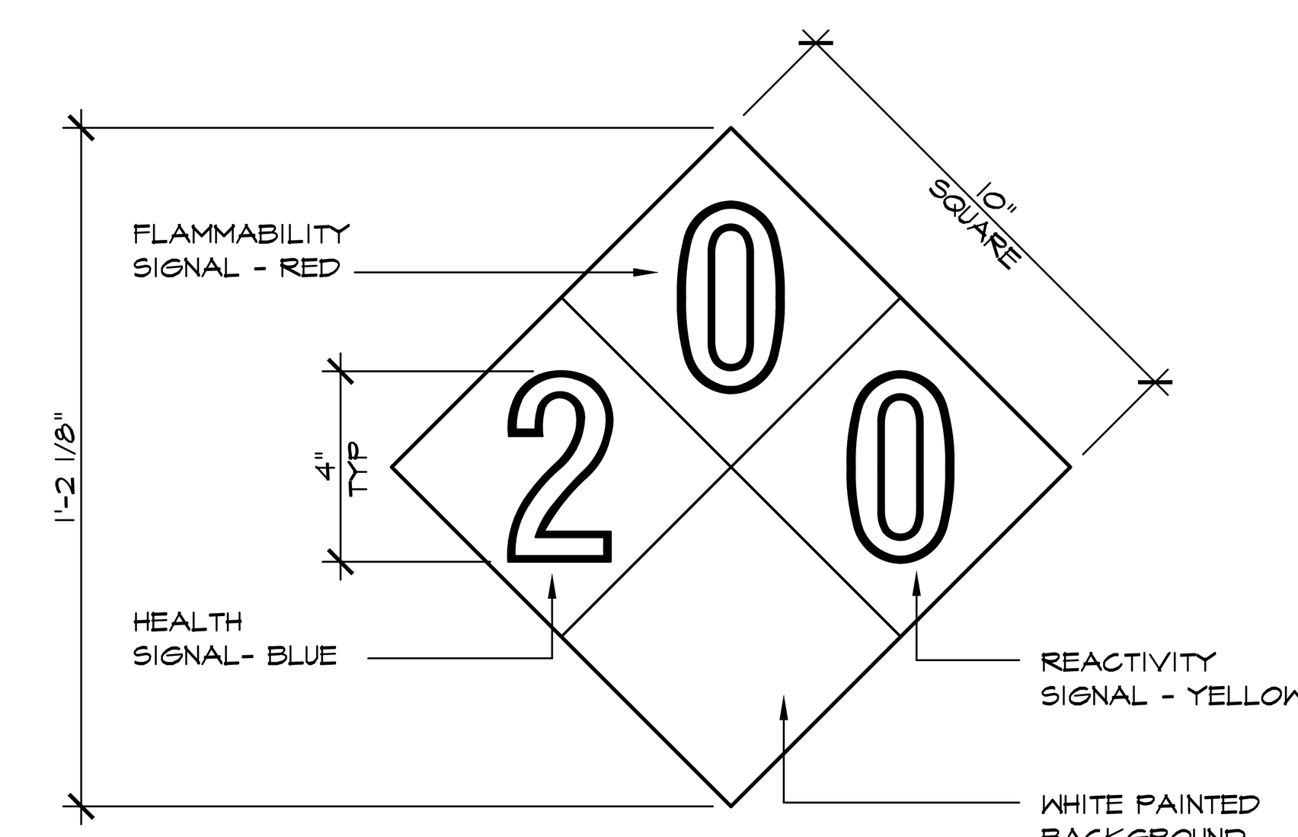
CHEMICAL INJECTION (2)

SCALE: 3" = 1'-0"



TANK LEVEL GAUGE (4)

SCALE: 1 1/2" = 1'-0"



7% MURIATIC ACID & 12.5% SODIUM HYPOCHLORITE

NOTE:
MOUNT ALUMINUM SIGNS 60" AFF ON DOOR & MOUNT SELF-ADHESIVE VINYL SIGNS ON CHEMICAL STORAGE TANKS.

CHEMICAL SIGNS (1)

SCALE: 3" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER DOUG R. JONES No. M25446 EXP. 9-30-24 MECHANICAL STATE OF CALIFORNIA

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

POOL PLUMBING DETAILS
COMMUNITY AQUATICS & SENIOR CENTER
SP4.4

	INITIAL	DATE
DESIGNED BY	DJ	9-30-22
DRAWN BY	JMAE	9-30-22
CHECKED BY	NM	9-30-22

APPROVED BY:
DATE DIRECTOR OF PUBLIC WORKS

SHT. 154 OF 157 DWG. NO. 5-2606

FILE PATH:
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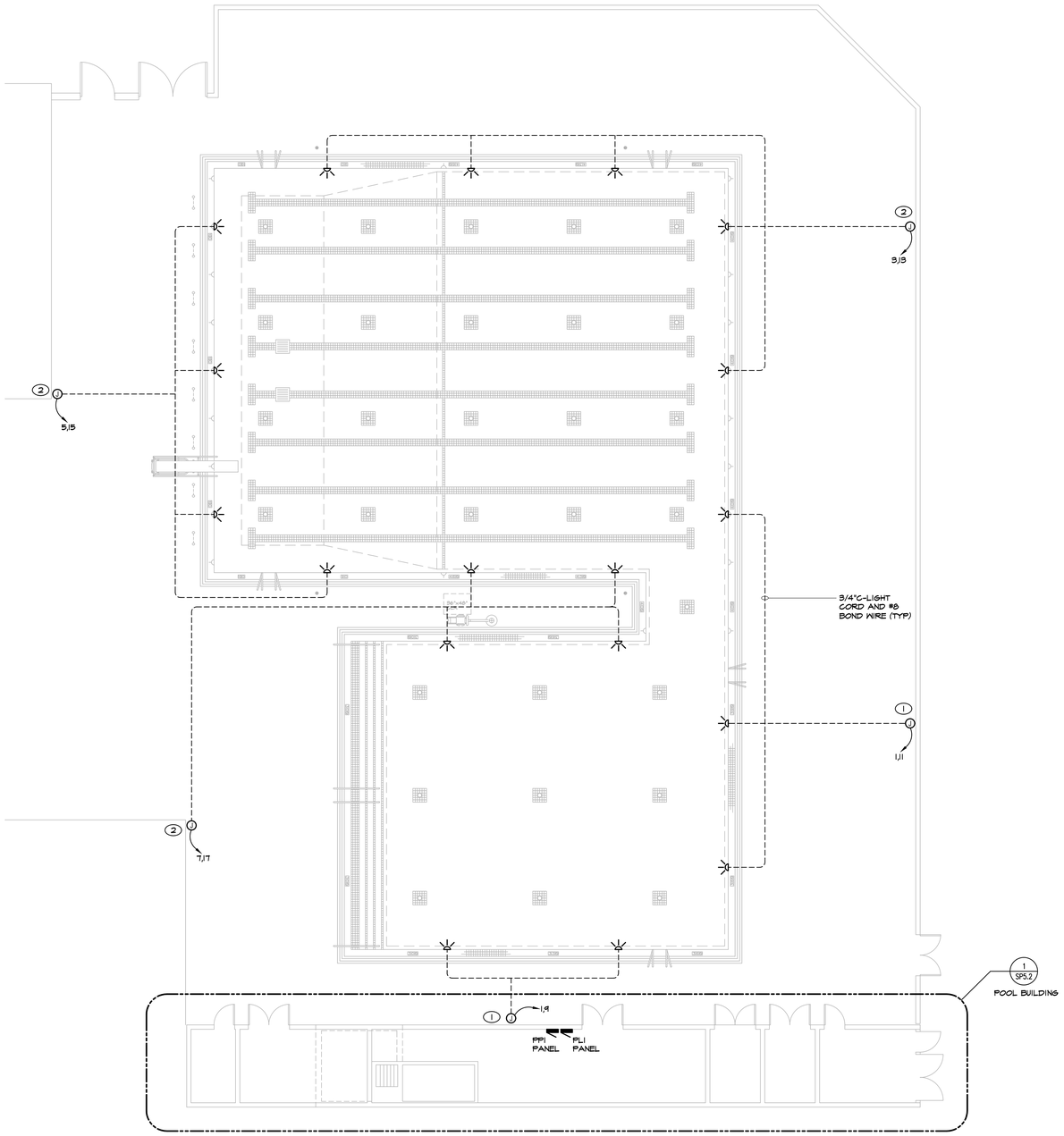

POOL ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

NORTH

GENERAL NOTES

1. ALL CIRCUITS SHOWN ARE TO PANEL PPI.

KEYED NOTES

(1) POOL LIGHT J-BOX. SEE DETAIL 1/SP5.3
(2) POOL LIGHT J-BOX. SEE DETAIL 6/SP5.3
(3) ROUTE THROUGH LIGHTING CONTACTOR.

SYMBOLS

SYMBOL	DESCRIPTION
	POOL LIGHT (TYP 18)
	208V PANELBOARD
1	JUNCTION BOX
X:#	HOME RUN X=PENLBOARD #=BRANCH CIRCUIT NUMBER

POOL DATA

1. NOT USED.

PREPARED BY:
COFFMAN ENGINEERS
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B.M.: THE CITY OF GARDENA BENCHMARK NO. SD-15
ELEV. = 43.508'

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING
POOL ELECTRICAL PLAN
COMMUNITY AQUATICS & SENIOR CENTER
SP5.1

	INITIAL	DATE
DESIGNED BY	KJN	9-30-22
DRAWN BY	CJB	9-30-22
CHECKED BY	KJN	9-30-22

APPROVED BY:
DATE
DIRECTOR OF PUBLIC WORKS

SHT. 155 OF 157 DWG. NO. 5-2606

PLOT DATE:
9/27/2022

PP1

PROJECT: GARDENA CASC POOL — PP1

Location:
Feed-Thru to:
Date: 9/29/2022

Ckt	Description	Phase	Amp	Poles	Notes	Ckt Totals
1	SOUTH POOL LIGHTS	A	20	1	1	0.25
3	NORTH POOL LIGHTS	B	20	1	1	0.25
5	NORTHWEST POOL LIGHTS	C	20	1	1	0.20
7	CENTER POOL LIGHTS	A	20	1	1	0.20
9	SE DECK RECEPTACLE	B	20	1	1	1.00
11	EAST DECK RECEPTACLE	C	20	1		1.00
13	NE DECK RECEPTACLE	A	20	1		1.00
15	NW DECK RECEPTACLE	B	20	1		1.00
17	SW DECK RECEPTACLE	C	20	1		1.00
19	SPARE	A	20	1		
21	SPARE	B	20	1		
23	SPARE	C	20	1		
25	SPARE	A	20	1		
27	SPARE	B	20	1		
29	SPARE	C	20	1		
31	SPACE	A				
33	SPACE	B				
35	SPACE	C				
37	SPACE	A				
39	SPACE	B				
41	SPACE	C				
2	POOL FILTER	A	20	1		0.50
4	POOL HEATER 1 CIRCUIT 1	B	35	1		3.12
6	POOL HEATER 1 CIRCUIT 2	C	25	1		1.30
8	POOL HEATER 2 CIRCUIT 1	A	35	1		3.12
10	POOL HEATER 2 CIRCUIT 2	B	25	1		1.30
12	CHEM CONTROLLER	C	20	1		0.50
14	UV SYSTEM	A	20	2		0.65
16	-	B	-	-		0.65
18	AIR COMPRESSOR	C	20	1		1.80
20	POOL BUILDING RECEPTACLES	A	20	1		0.72
22	SPARE	B	20	1		
24	SPARE	C	20	1		
26	SPARE	A	20	1		
28	SPARE	B	20	1		
30	SPARE	C	20	1		
32	SPACE	A				
34	SPACE	B				
36	SPACE	C				
38	SPACE	A				
40	SPACE	B				
42	SPACE	C				

Specifications

Voltage (L-L):		208
Phase/Wire:		3PH / 4W
Bus Current Rating (Amps):		125
Bus Material:		
Short Circuit Current Rating (Amps)		
Main Type:		MCB
Main Rating:		125
Neutral Type:		FULL
Mounting/Encl.:	SURFACE	NEMA 1

2017 NEC Sections Used in Demand Calculations

Factor #	NEC Reference	Notes
1	TBL 220.44 Receptacles ND	1st 10k @100%, Remainder @50%
2	TBL 220.42 Apartments General Lighting	1st 20k@50%, 20-100k @40%, >100k @30%
3	430.24 Motors	Largest @125% Remainder @100%
4	210.19(A)1 Cont Loads	125%
5	Non-Cont Loads	100%
6	220.51 Heating	100%

Feeder Load Breakdown	Conn(KVA)	Dmd Fact
Non-Dwelling Receptacles	5.72	1.00
Dwelling General Illumination	0.00	0.00
Non-Continuous Lighting	0.00	1.00
Continuous Lighting	0.00	1.25
Exterior Lighting	0.90	1.25
Kitchen Appliances	0.00	1.00
Motors	8.26	1.00
Largest Motor (per phase)	1.80	0.25
Fixed Heating	0.00	1.00
Fixed Cooling	0.00	1.00
Non-Diversity Loads	0.00	1.00
Other	4.68	1.00

Connected Feeder Load Summary

	CONN KVA	CONN AMPS	NEC KVA	NEC AMPS
PHASE A:	6.44	53.63	7.00	58.31
PHASE B:	7.32	60.95	7.83	65.22
PHASE C:	5.80	48.30	6.30	52.46
TOTAL:	19.56	54.29	21.14	58.66

Notes: 1. GFI TYPE BREAKER.

Panel Loading: ACCEPTABLE

PL1

PROJECT: GARDENA CASC POOL — PL1

Location:
Feed-Thru to:
Date: 9/29/2022

Ckt	Description	Phase	Amp	Poles	Notes	Ckt Totals
1	POOL CIRC PUMP	A	60	3		7.50
3	20HP	B	-	-		7.50
5	-	C	-	-		7.50
7		A				
9		B				
11		C				
13		A				
15		B				
17		C				
19		A				
21		B				
23		C				
25		A				
27		B				
29		C				
31		A				
33		B				
35		C				
37						
39						
41						
2		A				
4		B				
6		C				
8		A				
10		B				
12		C				
14		A				
16		B				
18		C				
20		A				
22		B				
24		C				
26		A				
28		B				
30		C				
32		A				
34		B				
36		C				
38		A				
40		B				
42		C				

Specifications

Voltage (L-L):		480
Phase/Wire:		3PH / 4W
Bus Current Rating (Amps):		200
Bus Material:		CU/AL
Short Circuit Current Rating (Amps)		
Main Type:		MCB
Main Rating:		200
Neutral Type:		FULL
Mounting/Encl.:	SURFACE	NEMA 1

2017 NEC Sections Used in Demand Calculations

Factor #	NEC Reference	Notes
1	TBL 220.44 Receptacles ND	1st 10k @100%, Remainder @50%
2	TBL 220.42 Apartments General Lighting	1st 20k@50%, 20-100k @40%, >100k @30%
3	430.24 Motors	Largest @125% Remainder @100%
4	210.19(A)1 Cont Loads	125%
5	Non-Cont Loads	100%
6	220.51 Heating	100%

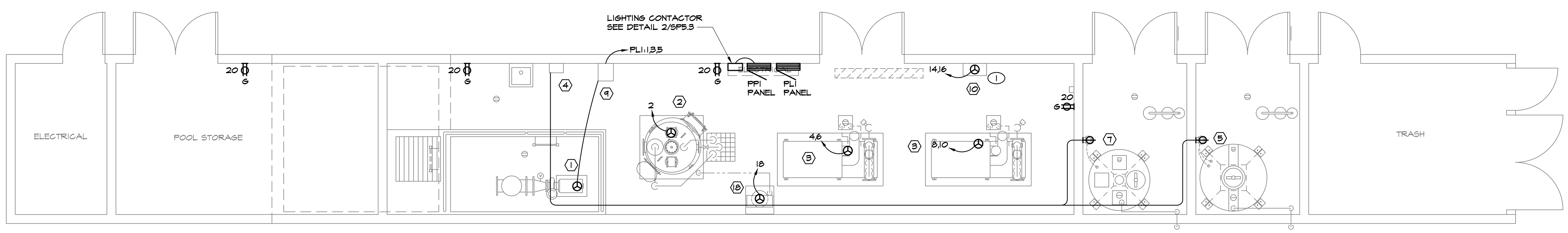
Feeder Load Breakdown	Conn(KVA)	Dmd Fact
Non-Dwelling Receptacles	0.00	0.00
Dwelling General Illumination	0.00	0.00
Non-Continuous Lighting	0.00	1.00
Continuous Lighting	0.00	1.25
Exterior Lighting	0.00	1.25
Kitchen Appliances	0.00	1.00
Motors	22.50	1.00
Largest Motor (per phase)	7.50	0.25
Fixed Heating	0.00	1.00
Fixed Cooling	0.00	1.00
Non-Diversity Loads	0.00	1.00
Other	0.00	1.00

Connected Feeder Load Summary

	CONN KVA	CONN AMPS	NEC KVA	NEC AMPS
PHASE A:	7.50	27.06	9.38	33.83
PHASE B:	7.50	27.06	9.38	33.83
PHASE C:	7.50	27.06	9.38	33.83
TOTAL:	22.50	27.06	28.13	33.83

Notes:

Panel Loading: ACCEPTABLE



POOL BUILDING ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

NORTH

GENERAL NOTES

1. CIRCUIT NUMBERS SHOWN ARE FROM PP1 PANEL UNLESS NOTED OTHERWISE.
2. ALL CIRCUITS ARE 3/4"C-2#12, 1#12G UNLESS NOTED OTHERWISE.

KEYED NOTES

(1) INTERLOCK UV SYSTEM WITH CIRCULATION PUMP
(2) CONTROL WIRING

POOL EQUIPMENT SCHEDULE

(1) CIRCULATION PUMP - 20 HP, 480V, 3Ø, 1,760 RPM W/ 850 GPM @ 65', 5"x4", PACO #40957 LC
(2) FILTER SYSTEM - 700 SQ FT, PERLITE MEDIA, FIBERGLASS TANK, 120V CONTROLLER, AQUIFY #PMF-42-700-FRP
(3) HEATER - 1,500,000 BTU W/ 120V, 1Ø PUMPS, 360 GPM, RAYPAK XTHERM INDIRECT #1505A (TYP 2)
(4) CHEMICAL CONTROLLER & SENSOR CELL - 120V, 1Ø, CHEMTROL #PC3000
(5) CHLORINE PUMP - 120 GPD, 120V, 1Ø, STENNER #170DM4
(7) ACID PUMP - 85 GPD, 120V, 1Ø, STENNER #85M5
(9) VARIABLE FREQUENCY DRIVE - 480V, 20 HP W/ FUSED DISCONNECT, PENTAIR ACU DRIVE XS
(10) UV SYSTEM - 566 GPM CAPACITY, 1.28 KW, 240V, 1Ø, PENTAIR #CLP64A8-XN
(18) AIR COMPRESSOR - 2 HP, 120V, 1Ø, 20 GAL TANK, INGERSOLL RAND #P1.5IU-A9

SYMBOLS

- EQUIPMENT CONNECTION
- DUPLEX RECEPTACLE:
  X = AS FOLLOWS:
  G - GROUND FAULT CIRCUIT INTERRUPT
- SINGLE RECEPTACLE
- POOL EQUIPMENT TAG
- X:# HOME RUN
  X=PENLBOARD
  #=BRANCH CIRCUIT NUMBER

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REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

B.M.: THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508'

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

POOL BUILDING ELECTRICAL PLAN

COMMUNITY AQUATICS & SENIOR CENTER
SP5.2

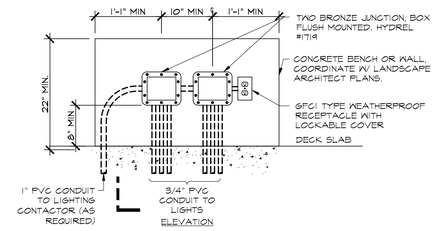
	INITIAL	DATE
DESIGNED BY	KJN	9-30-22
DRAWN BY	CJB	9-30-22
CHECKED BY	KJN	9-30-22

APPROVED BY:
DATE — DIRECTOR OF PUBLIC WORKS

FILE PATH:
PLOT TIME:

NOTES:

1. PROVIDE STRAIN RELIEF ON LIGHT CORDS ENTERING JUNCTION BOX.
2. INSTALL IN CONCRETE BENCH OR WALL. SEE LANDSCAPE PLANS.

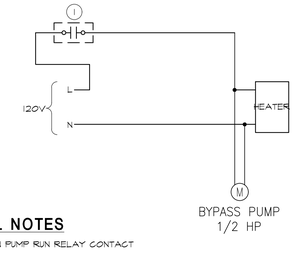


ELEVATION

POOL LIGHT MULTI J-BOX

NOT TO SCALE

6



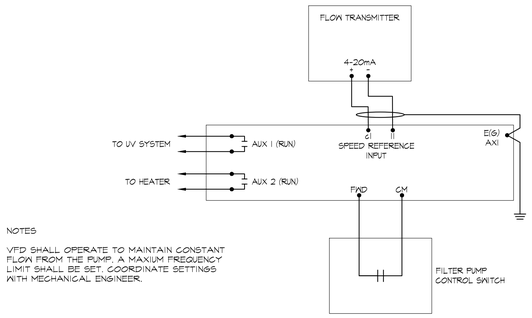
DETAIL NOTES

1. CIRCULATION PUMP RUN RELAY CONTACT

HEATER CONTROL DIAGRAM (TYP.)

NOT TO SCALE

3



NOTES

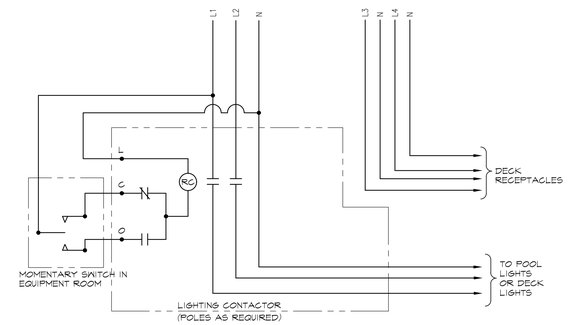
VFD SHALL OPERATE TO MAINTAIN CONSTANT FLOW FROM THE PUMP. A MAXIUM FREQUENCY LIMIT SHALL BE SET. COORDINATE SETTINGS WITH MECHANICAL ENGINEER.

CONTROL SCHEMATIC

VARIABLE SPEED DIRVE (VFD)

NOT TO SCALE

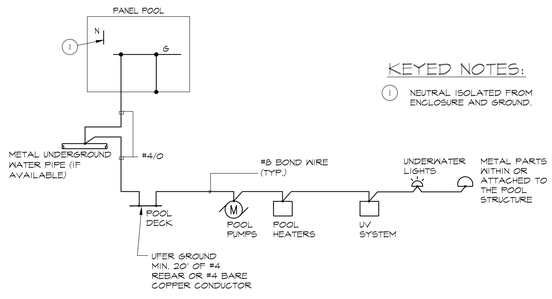
5



LIGHTING WIRING DIAGRAM

NOT TO SCALE

2



KEYED NOTES:

1. NEUTRAL ISOLATED FROM ENCLOSURE AND GROUND.

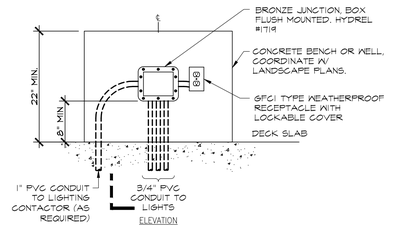
POOL GROUNDING AND BONDING DETAIL

NOT TO SCALE

4

NOTES:

1. PROVIDE STRAIN RELIEF ON LIGHT CORDS ENTERING JUNCTION BOX.
2. INSTALL IN CONCRETE BENCH OR WALL. SEE LANDSCAPE PLANS.



ELEVATION

POOL LIGHT SINGLE J-BOX

NOT TO SCALE

1

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REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

CITY OF GARDENA

DEPARTMENT OF PUBLIC WORKS - ENGINEERING

ELECTRICAL DETAILS

COMMUNITY AQUATICS & SENIOR CENTER

SP5.3

	INITIAL	DATE
DESIGNED BY	KJN	9-30-22
DRAWN BY	CJR	9-30-22
CHECKED BY	KJN	9-30-22

APPROVED BY:

DATE DIRECTOR OF PUBLIC WORKS

SHT. 157 OF 157 DWG. NO. 5-2606

PLOT DATE: 11/17/2022